ECONOMIC HISTORY OF BENGAL

(c. 400 - 1200 A.D.)

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ABSTRACT

This thesis is a systematic survey of the economic history of Bengal (c.400-1200 A.D.) as far as it can be re-constructed from available sources.

In the introduction, we discuss the importance of the study of economic history, especially in relation to ancient Bengal, mentinn the works written on the subject so far, and evaluate the sources used in our study.

The first chapter deals with the geographical background and the close relations between physical factors and the economy of the country.

The second chapter is sub-divided into two sections. While the first deals with agriculture, the second gives a short account of the fauna of Bengal.

In the third chapter we make a detailed study of the land system. It is sub-divided into nine different sections dealing with the following aspects of the land system: a) land sale, b) land-grants, c) types of land, d) land survey demarcation and boundary disputes, e) land measurement, f) land tenure, g) price of land, h) demand for land, and e) ownership of land.

The fourth chapter is devoted to some of the crafts and industries practised in our period.

The fifth chapter on trade and commerce contains two sections - a) internal, and b) external trade.

Our sixth chapter studies the revenue system and in this connexion we analyse the different revenue terms found in the land grants and try to explain several on which there is difference of opinion among scholars.

The seventh and final chapter deals with the coinage system, mainly from the economic point of view.

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N.B. Some parts of this thesis contain a large number of irritating and untidy corrections. This is due to the carelessness of a typist unfamiliar with writings on oriental subjects and I apologise on her and my own behalf.

CONTENTS

ABBREVIATIONS

Amara	Amarakośa.
A.M.S.J.	Sir Ashutosh Mookherjee Silver Jubilee Commemorative Volume, No.3.
Arthaś	Kauṭilya Arthaśāstra.
A.S.I.	Archaeological Survey of India.
A.S.I.R.	Archaeological Survey of India Report.
Beal records	Si-yu-ki. Buddhist record of the western world. Tr. from the Chinese of Hiuen Tsang by S. Beal.
B.E.F.E.O.	Bulletin de l'Ecole Française d'Extreme Orient, Hanoi.
B.I.	N. R. Roy's Bāngālīr Itihāsa, Ādi Parva (in Bengali).
Bṛhaspati	Bṛhaspati Smṛti.
C.C.I.M.	Catalogue of coins in the Indian Museum, Calcutta.
C.C.I.	Corpus Inscriptionum Indicarum.
D.R.B.	D. R. Bhandarkar Volume.
E. & D.	History of India as told by its own historians, by H. M. Elliot & J. Dowson.

Ed.	Edited.
E.I.	Epigraphia Indica.
Ferrand	Relations de voyages ex Textes Geographiques Arabes, Persons et Turks etc. 2 vols.
f.n.	foot note.
G.L.M.	Gaudalekhamālā.
H.B.	History of Bengal, Vol. I, Ed. by R. C. Majumdar.
H.R.S.	U. N. Ghoshal's Contributions to the history of Hindu Revenue system.
I.A.	Indian Antiquary, Bombay.
I.B.	N. G. Majumdar's Inscriptions of Bengal, Vol. III.
I.H.Q.	Indian Historical Quarterly, Calcutta.
Ins.	Inscriptions.
J.A.S.B.	Journal of the Asiatic Society of Bengal, Calcutta.
J.B.O.R.S.	Journal of the Bihar and Orissa Research Society, Patna.
J.E.S.O.	Journal of the Social and Economic history of the Orient, Leiden.
J.N.S.I.	Journal of the Numismatic Society of India.

J.R.A.S.	Journal of the Royal Asiatic Society of Great Britain and Ireland.
Legge	Travels of Fa-hien.
Mahā	Mahābhārata.
Manu	Manu-Smṛiti.
M.A.S.B.	Memoirs of the Asiatic Society of Bengal.
M.A.S.I.	Memoirs of the Archaeological Survey of India.
Marco Polo	The Travels of Marco Polo, English tr. by Colonel Sir H. Yule.
Nārada	Nārada Smṛiti.
Periplus	Periplus of the Erythrean Sea. Ed. W. Schoff.
Pl.	plate.
Pt.	part.
Raghu	Raghuvaṁśa of Kālidāsa.
Rājat	Rājataraṅgiṇī of Kalhaṇa.
R.C.	Rāmacaritam of Sandhyākara Nandī.
S.B.E.	Sacred Books of the East.
Select Ins.	D. C. Sircar's Select Inscriptions bearing on Indian History and Civilisation, Vol. I.
S.K.M.	Sadukti Karṇāmṛta. Ed. Śrīdharadāsa.

Tr.	Translation.
Watters	On Yuan Chwang's Travels in India by T. Watters.
Yājñavalkya	Yājñavalkya Smṛti.
V.S.P.	D. C. Sen's' Vaṅga Sāhitya Paricaya.

LIST OF PLATES

Figure	Place	Sources
Plate I a. Fish	Pāhārpur	M.A.S.I. 55 Pl. XXXIX d.
b. Goose	"	....LIV c.
c. Peacock	"	" d.
d. Horse	"	LIII f.
e. Elephant	"	" a.
f. Camel	"	" b.
Plate II a - i. Pottery	"	LX, LXII
" III a - c. Rows of terracotta plaques	"	XXXIX b.c.
" IV a and b. Ornamental bricks	"	LXIII
" V Pāla Bronzes		
a. Avolokiteśvara	Nālandā	A.L.Basham, Wonder that was India, p.313.
b. Avalokiteśvara-Padmapāni	Kurkihār, Bihār	"
c. Ganeśa, Three Mother Goddesses and Kuvera		"
" VI Bronze image of		

Śiva and Pārvatī with their children Ganeśa (left) and Kārttikeya (right) (12th or 13th century)	Bengal	Hermann Goetz, India, London, p.141.

INTRODUCTION

Interest in ancient economic conditions is a comparitively recent development. The popular conception that the ancient Indians were concerned more with mystical speculation than with material prosperity has proved totally inadequate, for the close connexion and interdependence of ethics, politics and economics (vārttā) has always been a fundamental assumption in all Indian thought.[1] It is true that the ineffectiveness of mere material goods for securing the supreme aims of existence has often been emphasised by most schools of thought, but the general attitude has always been that of regarding wealth (artha) not as an end in itself, but as a means towards the full development of all aspects of human life. Moreover, among the four ends of human existence, embodied in the Indian doctrine of Puruṣārtha, i.e. Dharma Artha, Kāma and Mokṣa, material gain proper was considered to be as important as any of the others, except perhaps the last one.

In India, more perhaps than in many other parts of the world, the past persists in the present. Many of the problems of social or economic character which confront us today either existed in the past or have resulted from them. The economic interpretation of our history may enable us to reconstruct not only the material life of our ancestors,

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1. Arthaś' text 1, 2, 1, 'anvīkṣikī trayī vārttā, daṇḍanītiśceti vidyāḥ' Manu VII. 43; Yājñavalkya 1. 311

but may even contribute to a correct interpretation of the very purpose of their everyday existence. It will also dispel the antiquated notion that the ancient Indians wandered only in spiritual quests and had no idea of real economic enterprise.

A pioneer work inthe field of economic history of India is the well-known work Die Sociale Gliederung um Nordostlichen Indien zu Buddha's Zeit by R. Fick. This author collected from the fields of Buddhist literature many data bearing upon social and economic life of the period. Following in his footsteps, some reputed scholars have worked on the economic condition of ancient India in different periods. Scholars like Dr. and Mrs. Rhys Davis, Atindranath Bose, U.N. Ghoshal, R.C. Majumdar, N.C. Banerjee, J.N. Samaddar, Prananatha, S.K. Maity, L. Gopal, B.P. Majumdar, P. Niyogi and others have by their research added considerably to our knowledge of the economic conditions of ancient India.

Nevertheless, ancient Indian economic history is a field which still has vast possibilities of exploration. It is a field which still shares unhappily the fate of borderland studies, which are both within and without the pale and therefore much neglected. For long it has been much overshadowed by political history and this is specially true in the case of Bengal. Although there are some brilliant works on the history of Bengal before the Muslim conquest, these generally devote very little space to its economic condition. The material and economic basis of society in Bengal hardly drew the attention of these historians, except incidentally and

the day-to-day life of the people and the different aspects of economic life were almost invariably overshadowed by its political history, the vicissitudes of its ruling Kings and lurid clouds of war. Perhaps, the only exception in this respect is Nihar Ranjan Roy's Bāngālīr Itihāsa published in 1949. In this scholarly work, besides dealing with political and cultural history, the author has tried to collect the isolated facts bearing upon the economic life of the people and emphasise their great importance in shaping the history of Bengal.

The purpose of this work is to attempt a systematic economic survey of Bengal from c. A.D. 400 to 1200, as completely as possible. The economic development of this period is varied and full of interest. Its study also provides the foundation for further economic developments in subsequent ages.

Unfortunately, the task of reconstruction is not an easy one. For not only do we have to examine the conditions of an age far removed from ours, but also the materials directly bearing upon economic conditions are very limited, although we have ample indirect evidence which may throw light upon economic conditions in the period under study. For example, from the Gupta and post-Gupta copper-plate inscriptions, we learn about the existence of a class of revenue officers called Pustapālas who kept records of land with boundaries together with the titles etc.[1] Unfortunately not even a fragment of these valuable records has hitherto

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1. Infra - p. 81a ff.

been recovered. Again a careful study of the Sena inscriptions reveals that by the beginning of the twelfth century A.D. there existed some kind of authoritative field-to-field survey in Bengal with accompanying records of holdings and rentals. These records would certainly have thrown much light upon the economic condition, particularly the land holdings. Unfortunately, however, these are also lost to us.

In these circumstances, we had to glean the isolated facts bearing upon the economic life of the time from several indirect sources, such as inscriptions, material remains, literary works and accounts left by foreign travellers and historians. We have tried our best to emphasise the importance of all the sources in our study. Nevertheless, we must admit that inscriptions have received our primary attention as the most important and trustworthy source, in so far as they furnish many reliable details of the economic conditions, especially the land system in Bengal. They have also the unique advantage that their information can most often be definitely dated and located. Written in Sanskrit, these may be grouped into two broad divisions - (1) official and (2) private. While the official records are mostly prasastis (eulogy) of Kings [1]. or land grants, the private inscriptions cover a wider range, from short votive inscriptions of two or three lines to pompous poetical compositions glorifying an individual or family [2].

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1. Deopāḍa Inscription of Vijayasena, I.B. pp. 42-56.
2. Bhuvaneśvar inscription of Bhaṭṭa Bhavadeva, I.B. pp. 25-41.

The land-grants mostly engraved on copper-plates, record grants of land made by Kings in favour of temples and religious foundations or individuals like Brahmanas. All of these inscriptions throw considerable light on the economic life of the day.

Next to these inscriptions, proper attention has been given to numerous archaelogical sources, such as the ruins of ancient sites, sculptures, terracotta plaques, coins and articles of every day use like pottery , agricultural implements, toys etc., unearthed from Bāngarh [1] Mahāsthān[2]; Pāhārpur,[3] Sābhār,[4] and Maināmatī.[5] These form contemporary evidence of the period under study, giving glimses of everyday life and occupation of the people. In addition, the flora and fauna of the country are often superbly represented in the medium of the terracotta plaques found at the different archaelogical sites of ancient Bengal.

Moreover, we have utilised occasional notices contained in literature of contemporary as well as later periods. Most of the literary works belong to a period later than the ninth century A.D. Of these, the Rāmacarita of Sandhyākara Nandī, Pavanadūta of Dhoyī and Saduktikarṇāmṛta, a compilation of Sanskrit verses by Sridharadāsa deserve special mention. The Rāmacarita is a Sanskrit Kāvya as well as a historical poem in the sense that by means of consistant play upon words (śleṣa), the

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1. K.G. Goswami - Excavations at Bāngarh, Ashutosh Museum Memoir , No. 1.
2. A. S I. A.R. 15. pp. - 39 ff .
3. K.N. Dikshit - Excavations at Pāhārpur. M.A.S.I. No. 55.
4. A.S.I.A.R. 1927-28 pp . 111 ff; 1925-26. pp. 40-41.

poet simultaneously narrates the story of the Rāmāyāṇa and the history of Rāmapāla (C.A.D. 1077-1119) of the Pāla dynasty. The poet was a native of Varendra and in his work he describes in detail the beauty and richness of the surrounding lands. From his account of Rāmāvati, we also get glimpses of the wealth and luxury of one of the ancient cities of Bengal.

The Pavanadūta of Dhoyī is a dūta Kāvya composed in the style of Meghadūta of Kālidāsa. It consists of 104 verses and some of these incidentally throw some light on the life of the people during the Sena period.

The Saduktikarṇāmṛta was compiled by Śrīdharadāsa in 1206 A.D. His father Vatudāsa was the chief feudatory and also a close friend of Lakṣmaṇasena. Among the 485 different poets whose works are compiled in this book, many were Bengalis and they often refer to different aspects of the economic life of ancient Bengal.

Another anthology of Sanskrit verses called the Subhasitaratnakośa has recently been published under the editorship of D.D. Kosambi and V.V. Gokhale. This was compiled by a Buddhist scholar named Vidyākara who was most probably a resident of Varendra in A.D. 1130.[1] The anthology is divided into 50 sections and the

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1. Subhasitaratnakośa, ed. by D.D. Kosambi and V.V. Gokhale, Harvard Oriental series Vol. 42, Preface p. vii, Introduction pp. XXX - XXXIX. Translated into English by D.H.H. Ingalls, H.O.S. Vol. 44.

verses included are those of celebrated poets like Kālidāsa Rājaśekhara, Bhavabhuti and many others, some of whom like Abhinanda, Jitarinandin, Jitaripada, Manovinoda, Yogeśvara and Lakṣmīdhara seem to have been Bengalis who lived in the time of the Pālas.

Two Buddhist works entitled the Caryāpada [1] and Dohākośa [2] written sometime between tenth and twelfth century A.D. also furnish some data on the economic condition of the time.

Among the works on Dharmaśāstra, the Prāyaścittaprakaraṇa of Bhaṭṭabhavadeva [3] though dealing with the modes of expiation for various sins and offences, contains some indirect references to economic conditions as well.

Besides, we have used the Dāyabhāga and Kālaviveka of Jimutavāhana who has been variously assigned to different periods, ranging from the 11th to the 16th century [4]. Rāgunandana's Prāyaścittatattvam also contains some data on economic life of the period.

Among works of a somewhat later date, mention may be made of the Bṛhaddharma Purāṇa and the Brāhmavaivarta Purāṇa. These two Purāṇas,

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1. The Caryāpadas - ed. M. Vasu, Calcutta , pp. 7 ff.
2. S.B. Das Gupta - Obscure Religious cults as backgrounds of Bengali literature, p - 7.
3. On Bhavadeva see P.V. Kane - History of the Dharmaśāstra, vol. I pp - 301-306.

composed not later than the 13th or 14th century A.D. were perhaps not written by Bengali authors, although they seem to have been closely connected with Bengal, for there are strong indications that the works reflect the peculiar conditions in Bengal.[1.]

In the category of folk literature, some sayings which are ascribed to Dāk and Khanā, contain many useful instructions on agricultural practices. Very little is known with certainty about the life and time of these two female astrologers. D.C. Sen has ascribed them to a period between the eighth to twelfth century A.D.[2.] But the language in which these aphorisms are found now, is definitely of later origin. However, as will be argued later on,[3.] it is quite likely that these were current in Bengal in our period, but in course of time and in the process of being transmitted from one generation to another, they were gradually modernised in form, though their meaning remained unchanged.

Many data connected with trade and commerce of ancient Bengal can be found in the Maṅgal Kāvya literature, which began to develop in Bengal, most probably from the 13th century A.D.[4.] Based on oral tradition of folk tales, these Maṅgal Kāvyas were tales of women's devotion to Manasā, Ṣaṣṭhī, Dharma and Caṇḍī, all of whom were originally

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1. C.f. H.B. p. 567
2. V.S.P. part I, pp 1 ff
3. Infra. p. 52.
4. A. Bhattacarya - Maṅgale Kāvyer Itihāsa, 3rd Edition, Calcutta 1958, pp. 36, 77, 94.

folk deities of non-Aryan origin and were later accepted in the Brahmanic pantheon. It is true that many of these literary works were composed later than our period. Yet, there is no doubt that these reflect to a great extent, the state of society prevailing in earlier times.

Lastly, accounts left by foreign travellers and historians, preserve many useful details about trade, industry and general economic condition of ancient Bengal. Among the Chinese sources, the best known is the work of Chau-ju-kua.[1] An inspector of foreign trade in Fukien at the beginning of the 13th century, he records in his book Chu-fan-chih (record of foreign countries) the informations he derived from the traders with whom he came into contact. His record preserves valuable information about the sea-trade in the period and the articles of import and export. Another Chinese writer, whose accounts we have studied is Ma-huan.[2] He was an interpreter attached to the suite of Cheng Ho, who was sent to the various kingdoms of the western ocean by the Chinese emperor Yung-lo in the beginning of the 15th century. Though belonging to a later period, his account is valuable as a supplementary source to other accounts of early medieval travellers, such as Marco Polo and Ibn Batutā.

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1. Chau Ju-kua - English translation by F. Hirth and W.W. Rockhill.
2. J.R.A.S. 1875. p. 523 ff.

The Arab accounts are valuable for their evidence on the condition of trade and often give details about the economic conditions of different cities, ports and kingdoms.

We know the names of two metal casters from a passage of Tārānātha's History of Buddhism[1]. Though this work was only completed in 1608, it is based on older sources and therefore throws some light on the economic life of Bengal during the Pala period.

In some places, we have utilised certain earlier as well as later sources in order to clarify certain points not properly explained by contemporary sources, so far available. Our main purpose, however, has been to study the economic conditions as they were, rather than what the different legal writers of different times desired them to be. Although it is true that the existence of certain rules would normally imply the existence of practices for which these rules were framed yet we have been rather cautious in utilising the data furnished by these legal texts, for they do not always describe the things as they were. In short, our primary concern has been to concentrate more on practice than on theory.

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1. Tārānāt/ha, 'Geschichte des Buddhissus in Indien' German translation by A. Schiefner, 1914, pp. 279-80.

CHAPTER I

GEOGRAPHICAL BACKGROUND

In studying the economic life of a community in any age, the first consideration should always be an examination of the environment in which it lives. In this connection, one must take into account a number of physical factors, which exert so great an influence upon the life and destiny of the people. So, before we proceed to study the different aspects of the economic life of ancient Bengal, it is essential to discuss, in brief, its geographical background and main physical features, such as the relief geological formations, the dominance of the landscape by rivers, significant aspects of climate and rainfall, and some soil characteristics. These settings are meant to explain in some detail the intricate interplay between nature and man in fashioning the productive forces of the area.

Bengal[1] is situated on the north-eastern side of the Indian sub-continent. It lies roughly between 27°89′ and 20°50′ north latitude and 80°35′ and 92°30′ east longitude. It has an area of 77,521 square miles. It is bounded on the north by the states of Nepal, Sikkim and Bhutan; on the west by the provinces of Bihar and Orissa; on the east by Assam and on the south-east by Burma; and on the south by the vast stretches of the Bay of Bengal.

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1. The name 'Bengal' is of recent origin and the terms Vaṅga or Vaṅgalādeśa, from which it is derived, were only two of the many divisions of ancient Bengal. Moreover the political boundaries of Bengal varied from time to time. So, for our convenience, the term Bengal has been used in this chapter to refer to the province as existing before the 1947 partition.

Physical features.

The heart of Bengal is one of the largest deltas in the world, - a plain formed of moist silt brought down by the rivers Ganges and Brahmaputra from the Himālayan mountains. But mountainous regions are included along the borders of the province.

To the north are the high mountains of the Himālaya, whose southern slopes descent steeply, but with many foothills, to the level low-lying plains of the great rivers.

On the eastern border of Bengal, there is a mountainous belt, rising to heights of more than six thousand feet and densely forested. These mountains throw out a spur westward, which rises a little near its end into the Gāro hills. The deeply trenched, relatively narrow valley of the Brahmaputra, known as Assam, lies between the Garo hills and the Himālaya. The southward drainage from the Garo hills forms a deltaic plain, extending nearly to the port of Chittagong. This plain, traversed by the Meghnā river, is continous with the delta of Bengal proper.

To the west of Bengal there is another hill spur, bearing the name of Rājmahal which is the north-eastern point of the plateau of peninsular India. A broad low-land gateway is left between the Gāro and Rājmahal hills and through this the Brahmaputra and the Ganges river then southwards and converge gradually until they join with the Meghnā to form a vast estuary. The country west of this estuary is the Bengal delta, traversed by many minor channels, which branch off from the right bank of the Ganges before its confluence with the Meghnā.

East of the estuary is that other deltaic land, whose silt is derived from the south front of the Gāro hills.

The plain itself can be divided into three broad divisions:-

(1) The older deltaic and flood plains lying north of the Ganges, Padmā, Meghnā axis;

(2) the younger deltaic and flood plains lying south of the axis; and

(3) the erosional and flood plain lying west of the Bhāgīrathī-Hooghly rivers. [1.]

From this it is evident that "the deltaic plain of Bengal has a double or even a multiple origin: one should not say the delta, but rather the deltas". [2.] The surface of the old delta has been preserved to some extent in the Bārind-Madhupur and Lālmāi regions. The younger deltaic plain is extremely low-lying and interlaced with numerous tributaries. Specially in the south, it is a combination of flood and deltaic plains. This plain can be further sub-divided into

(a) moribund,

(b) mature and

(c) active sections. [3.]

Of these, the first is a region where the off-takes of the old distributaries have been silted up and the rivers are in a dying state. But the last two regions are continually revivified by the silts of a very active river system, which enables them to support a dense population.

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1. S.P. Chatterjee - Bengal in maps. p. 8.
2. Cf. O. H. K. Spate , India and Pakistan. p. 524.
3. Ibid. p. 536.

The Rivers

The most characteristic physical feature of the flat plain itself is the number of rivers which have carved out a complicated drainage pattern with the help of their tributaries and numerous distributaries. The activity and behaviour of these rivers is of the utmost importance in determining the economic condition of the people. The Ganges, Brahmaputra and the Meghnā rivers with their numerous branches and adjuncts have always been a great factor in shaping the destiny of the people. They serve as drainage channels, eliminate up to a great extent the need for artificial irrigation; ensure an abundant supply of fish, and above all act as a great fertilizing agency for a large part of the province. Most of these rivers, being navigable far inland throughout the year, also provide cheap and convenient means of transport and communication. For this reason, all the flourishing cities, trade centres or big villages are situated on the banks of these rivers and any change in their courses have been responsible for the making or unmaking of many a prosperous cities thriving trade centres and villages of ancient Bengal. Thus it is indeed true to say that "it is in the history of these rivers of Bengal, that a chronicle of its past civilisation can be built up ." [1.]

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1. S. Hussain, Everyday life in the Pala Empire with special reference to material remains. Thesis submitted in the University of London for the degree of M.A. 1960, p 27.

"Great changes have taken place in the courses of some of the important rivers in Bengal during the last four or five hundred years. Judging from the content of these changes, we must presume the possibility of similar changes in the preceding centuries, though at present we have no means to determine the nature and content of these changes. In other words, the courses of the rivers of Bengal during the ancient period ending in 1200 A.D. were very different from not only those of the present time, but even from those in the recent past for which we have some positive evidence".[1.]

The Ganges enters Bengal at ā point where the Rājmahal hills mark the border of Bengal. There is, however, a great difference between the present course of the river and that existing before the sixteenth century. Then the Ganges flowed further north and east and probably the city of Gauḍa once stood on its right bank. After more than one shift towards the south and west, it reached its present course. The dry beds of some of its earlier channels can still be traced.

The Ganges divides itself into two branches, about twenty-five miles to the south of ancient Gauḍa - (1) the Bhāgīrathī and the (2) Padmā. The first is the westernmost channel of the Ganges, while the second runs in a south-easterly direction towards the Bay of Bengal.

L. D.R.B. volume. p. 359.

Though the Bhāgīrathī is gradually dying out in its upper reaches, and the condition of its left bank feeders, the Bhairab-Jalāṅgī and the Māthābhāṅga are no better, yet early historical references point out to the fact that in ancient times, this was in all probability the more important of the two channels of Ganges, mentioned above. There has always been a great sanctity attached to this river, which is not the case with Padmā. The Naihāṭi copper plate of Vijayasena[1] refers to the Bhāgīrathī as the 'heavenly river' and this indicates that it was considered identical with the Ganges. Again the Govindapur Copper plate of Lakṣmaṇasena proves that generally speaking the name Bhāgīrathī conveyed the same meaning as Jāhnavī or Ganges.[2]

That the Bhāgīrathī was originally the main channel of the Ganges, appears also from a study of the ports of Bengal. The Chinese accounts and ancient Indian literature prove definately that at least up to the end of the seventh century Tāmralipti was the principal port of Bengal. Ptolemy places it on the banks of the river Ganges.[3]

According to Hiuen Tsang, it was near an outlet of the sea.[4] It may be easily presumed from the above that at least from the second to the seventh century A.D., the main branch of the Ganges reached the sea near Tāmralipti or modern Tāmluk.

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1. IB. p. 74.
2. Ibid. pp. 94, 97.
3. J.W. McCrindle. Ancient India as described by Ptolemy. Ed. S.N. Majumdar, Calcutta 1927. p. 167.
4. T. Watters, Vol.II, p.190.

The evidence of the Tabaqāt-i-Nāsiri also proves that the Bhāgīrathī was regarded as the main branch of the Ganges, for it refers to the two main divisions of Bengal, viz. Rādhā and Varendra, on the western and eastern side of the Ganges.[1] It is interesting to note that there is no reference to the river Padmā in this work. Although we should not attach too much importance to negative evidence of this kind, it may be argued that the Padmā did not exist as a big river during the period ending in 1200 A.D. This may be confirmed by two considerations. First, the territorial division in ancient Bengal known as the Pundra-Vardhanabhukti sometimes comprised both north and south Bengal.[2] This would probably not have been the case, if a mighty river separated the two. Secondly, Hiuen Tsang in the course of his travels over Bengal and Assam, refers to two big rivers which he crossed, viz. the Ganges which he crossed near Rājmahal in order to reach north Bengal, and a large river, probably the Karatoyā which he had to cross before going to Kāmarupa. But although later on, he travelled from Kāmarupa to Samataṭa and from Samataṭa to Tāmralipti, he does not refer to any other large river. It may therefore, be concluded that from the earliest historical times the Bhāgīrathī was regarded as the main branch of the Ganges.

This does not, however, disprove the existence of the Padmā river as a great stream, at a fairly early period. For even when the main waters of the Ganges began to flow along the Padmā, people preferred to cling to age-old religious beliefs about the sanctity of

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1. Tabaqāt-i-Nāsiri, tr. H.G. Raverty, London 1881. pp 584-585.
2. IB. pp 56 ff., 169. ff.

the old channel. This is forcibly illustrated by the attitude of the Hindus of the present day, towards Tolly's Nullah (ādi Ganga) near Kalighāt in Calcutta. Further, although the Padmā has been the main channel of the Ganges for at least more than three hundred years, the old belief about the sanctity of the Bhāgīrathī channel has not been transferred to the Padmā even to the slightest extent. Thus although we must hold that the Bhāgīrathī was the main channel of the Ganges at an earlier period, the date when this channel was diverted and the Padmā began to carry the main volume of the water of the Ganges, may be very remote.

In its lower reaches, the Bhāgīrathī branches off into three streams: the Sarasvatī, the Jumna and the Hooghly in the centre. Of these the first flowed into an estuary near modern Tāmluk and received not only the waters of the Rupnārāyaṇa and Dāmodar, but those of many other smaller streams from the hilly west. After the seventh or eighth century A.D., the port of Tāmralipti ceased to be the most important port of Bengal on account of the silting up of the mouth of the Sarasvatī and the consequent shifting of its course. Its place was ultimately taken up by Saptagrāma or Sātgāon, a little up the same river. This change must have occurred by the thirteenth century at the latest, as Sātgāon became the first muslim capital of lower Bengal and was already a flourishing town early in the fourteenth century A.D.[1].

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1. C.f., D.R.B. volume. p. 346.

As regards the Padmā, it flows south-east till it joins the Brahmaputra near Goalundo. At present the main volume of the waters of the Ganges is carried by the Padmā, which, at places, is very broad. This capricious river is known to have shifted its course several times. Even now, it flows never exactly in the same place for two successive years. With the result that sites of market places and important crossing points go on shifting from place to place almost every year. The great rivers, especially the Padmā, have been continually eating up one bank and depositing silt on the other; while islands and chars of considerable size rise from their beds and often disappear as quickly as they come up. These freshly formed sand and silt lands whose formation or disappearance is due to the constant shifting of river courses, play an important part in the life and rural economy of the people. Loss of char by deluvial action reduces land space and the cultivable area and often results in migration of population. On the other hand, appearance of chars means more land for immediate cultivation and invites settlers, though much inevitable litigation follows between individuals who gain or lose slices of land. The crops that these lands supply are very valuable. They require a minimum of effort, for the land needs hardly nny ploughing or weeding. It is enough to sow or transplant the crop when the river has receded and harvest before the river returns.

The frequent changes in the course of the rivers have also been responsible for the ruin of many old sites, at times by washing them off and more often by making them unhealthy and inaccessible.

For example, the decline of Tāmralipti was primarily due to the silting of the mouth of the Sarasvatī river. Similarly it is believed that the shifting of the beds of the Kosi river gave rise to swamps and floods, that contributed to the ruin of the city of Gauḍa. In addition to the frequent shifting of courses, the vast deposit of silt by the rivers in the deltaic region between the Bhāgīrathī and the Padmā , has been to a great extent responsible for the change of its physical features. For the deposit of silt constantly raises the level of the land in some areas and thereby makes other regions comparitively lower and water-logged. In this connection, the vast Sunderban area in the delta, offers a good example. According to many people, this area had once been a populous tract, but was later on depopulated because of the ravages of nature and particularly the constant hydrographic changes. We know from the Sena inscriptions [1] that the Khāḍi visaya or mandala was once a flourishing region, but this area is now covered with shallow marshes and thick forests.[2] Similarly the marshy area, called Koṭālipāḍā in the Faridpur district was once a prosperous seat of civilisation and possibly also a big centre of trade.[3]

In the Bengal plains, the Ganges gives off many other distributaries and spill channels. Among these the most important are Garāi-Madhumati and Arial Khan. These in turn split into numerous channels.

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1. IB. pp. 56. ff; 169. ff.
2. H.B. p.7.
3. IA. 1910. pp. 193-216.

Many old branches, such as the Māthābhāṅgā, Kumār and Bhairab, though once big streams are gradually dying out.

Of the other great rivers, the Brahmaputra enters Bengal round the Gāro hills, near Mājhiāli in modern Rangpur district, after flowing through the Assam valley. Soon after its entry into the province, it receives the Tistā on its right bank and follows a course due south under the name of Jumnā. On the left bank, north of Dewānganj, old Brahmaputra which was the old channel of the river till 1787, leaves the main stream. Before its junction with the Padmā, near Goalundo, it receives the Baral-Ātrāi, Hurasāgar combination on its right bank. A few miles above this confluence, and about forty four miles above its juction with the Padmā, it throws off a large branch on the left bank and this is known as the Dhaleśvarī. The old Brahmaputra, which flows past Mymensingh town and joins the river Meghnā at Bhairabbāzār, is now of secondary importance.

The Brahmaputra is notorious for its shifting of channels and formation of chars. As a result, no permanent settlements can exist along its banks. Even in the dry season, it has a breadth of three to four miles in its lower reaches and as such serves as an important waterway.

The chief part of the Meghnā river is formed by the union of two rivers in Assam - the Surmā and the Kuśiyārā. After its confluence with the old Brahmaputra, it grows rapidly and begins to flow as a wide meandering river, with offshoots and branches. Near Munsiganj it

receives the combined waters of the Burīgangā, the Dhaleśvarī and the Śītalakṣyā and later on the Padmā at Chandpur. Altogether, the Meghnā is a river of great depth and velocity. During the monsoon it spreads out over a considerable area and is navigable all the year round.

In north Bengal also there are a number of rivers which ultimately flow either into the Ganges or into the Brahmaputra. Many of these have changed their courses in comparatively recent past. One of these, the Tistā used to run due south in three channels, namely the Karatoyā to the east, the Punarbhava to the west and Atrāi in the centre. Before the year 1757, the main waters of the Tistā used to be carried to the Ganges by the Ātrāi channel. But there was a sudden change in the course that year, when the Tistā forsook its old channel and rushing south-east ran into the Brahmaputra.

Since the diversion of the Tistā river, most of the rivers of north Bengal, with the exception of only the Mahānandā, are gradually dying out.

Kosi is another of the north Bengal rivers, which has considerably changed its course. This river, which now flows through the district of Purnea in Bihar and joins the Ganges at a point higher up than Rājmahal, originally ran eastward and fell into the Brahmaputra. Therefore there must have been a continuous drift in the course of the river Kosi, towards the west since a very early period.

Thus it is clear from the above, that the three great rivers and their numerous branches and tributaries have affected the life of the people in more ways than one. By intersecting the province in different directions, they provide a complete and easy navigation system. This has two consequences. On the one hand, the system provides facilities for internal communications as well as connections with the outer world, thereby fostering trade and commerce. On the other hand, by dividing the province of Bengal in many divisions, these rivers have contributed to some extent in developing a sense of isolation or regionalism within the province.

Climate

Juxtaposition to the Bay of Bengal and the presence of the surrounding highlands are the basic determinants of the climate. On the one hand, temperatures are moderate: monthly minimum are around 64°F; the maxima around 80-85°F. The latter are attained over west part of Bengal in April, while January is the coldest month all over the area in the winter, which lasts from about the end of November to the middle of February. This moderation in the hot-weather temperature, however, is accompanied by excessive humidity from mid-March to October.[1]

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1. Nafis Ahmed, Economic Geography of East Pakistan, p.40.

Rainfall.

The annual rainfall of Bengal averages about 75 inches. Most of the rain falls during the main monsoon period between June and September. But appreciable quantities are brought by cyclonic disturbances known as norwesters between March and May. These norwesters are really a mixed blessing for Bengal. With their normality or punctuality is linked the fate of the two major crops - jute and aus paddy. On the other hand, the storms accompanying them are often the cause of extensive damage to property on land and rivers. Occasionally there is also loss of life. Winter rains are almost negligible in Bengal; small amounts in north Bengal enables the cultivators to grow pulses , cereals, as well as some winter vegetables. In spite of the fact that Bengal is copiously watered by the numerous rivers and the monsoon rains, the failure of rain at its due time, or too much or too little of it at certain times, seriously affects crop production. Abnormal excess often brings about floods, which damage crops. Again crop failure may result if the rainfall for a given period is normal in amount, but untimely in its incidence. Therefore, the amount and distribution of rainfall is of utmost importance in a primarily aggrarian country like Bengal.

Soils.

The soils of Bengal have been primarily derived from alluvium deposits. There are also hill soils with a sandstone and shale base. They have been classified under different heads, viz. silt or silt loams, clayey soils, sandy loames, swamped soils and red soils etc.

Silt loam consists of extensive silt deposits and is generally found in the inundated tracts of the big rivers or near the river beds. These are soils of great fertility, easy to plough and capable of producing a variety of crops. The alluvium plains in the north are covered with sandy loams. Clayey soils predominate in the other parts of the Bengal plain. Im swamps and lakes, clays with or without silt are found. The alluvial along the coast and specially in the Sunderban area, are impregnated with saline soils and these are very poor for agricultural purposes, for soils with large proportions of sand become porous and are not suitable for the cultivating of āman variety of paddy. But they do grow vegetables and jute. The sandy chars are suited for growing melons, mustard and different kinds of pulses. Pure sand and sand-dunes are found along the sea-coast in the south. Lastly owing to the climate of Bengal, with its heavy rainfall and heat, the old alluvium of Varind, Madhupur , and Lalmai region become laterised to some extent, assuming a red or yellowish red-colour. When dry, the soil becomes very hard and porous. As such, it is not easy to plough them and their general level of fertility is quite low.[1]

Settlements and land utilisation:-

Villages played the most important part in the settlement pattern of most of ancient Bengal. From time immemorial, these seem to have been the unit of the economic structure of the country.[2]

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1. N. Ahmed, op. cit., pp.64-65.
2. H.B., p. 643

Even now, the vast landscape of Bengal is dominated by villages. According to Majumdar, the ancient villages of Bengal were of a nucleated type and there were no scattered homesteads as at present. But rice cultivation, and the widely inundated topography of the country, especially in the south-eastern part, would lead to the development of individual, dispersed settlements, as against their compactness and nuclation. [1] Perhaps in ancient times, the dread of both men and beast kept the habitations rather closely clustered. A large number of these villages (grāma) are mentioned in ancient inscriptions. As at present, ~~time~~ their size varied from time to time and from place to place. There was again, no uniformity in the standards used in their measurement. Small villages were generally known as pāṭaka from which perhaps the modern Bengali word pāḍā (locality), has been derived. [2]

The land utilization had a pattern of its own; habitations were usually on raised lands called vastu. The arable land was called Kṣetra. Some land was set apart for pasture and was known as go-cara. It was usually located in a corner of the village or along its boundaries. Part of the land was used for repose pits (garta) canals and drainage channels (nālā). Cattle-paths (gō-patha or go-mārga), embankments (āli), tanks and temples ~~and~~ sometimes occupied various portions of the land. The barren land is called uṣara. A few of the villages controlled woodlands and forests, where the people possibly went to gather their firewood and litter. [2]

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1. N. Ahmed, op. cit., p. 72.

2. H. B., p. 643.

In spite of the predominantly rural character of ancient Bengal it appears from various sources that there were also towns of considerable size and importance. Most of these centres of administration because of their suitable location and facilities of transport and communications served as centres of trade or pilgrimage.[1] Both literary and epigraphic evidence indicates that while the rural population was mainly dependent on the soil and its produce, the towns, though closely associated with rural economy, tended to serve ~~in~~ a variety of functions as military, administrative, commercial, industrial or religious centres. But in the eyes of ancient observers, the most characteristic feature of the towns was their comparative wealth and luxury. For example, the description of Rāmāvatī and Vijayapura, the capital of the Pālas and Senas by two contemporary poets, in spite of poetic exaggerations, gives us a vivid picture of the rich cities of ancient Bengal. Such towns contained wide roads and symmetrical rows of palatial buildings towering high and surmounted with golden pitchers on the top.[2] From the accounts of Hiuen Tsang [3] and the Kathāsaritsāgara,[4] we learn that Tāmāliptī was renowned for many wonderful articles of value and was inhabited by wealthy merchants.

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1. For detail discussion on the different important towns of ancient Bengal see History of Bengal, Vol. I, pp. 29-34.; S.K. Sarasvati - Forgotten cities of Bengal, Calcutta Geographical review, Vol.I, No. 2.
2. R.C. III V. 29-31; Pavanadūta V 36.
3. Beal records II p. 200-201
4. Kathā Tawny, VI, p. 211

Also the Rājataraṅgiṇī speaks of the wealth of the citizens of Puṇḍravardhana. One of the Sena inscriptions, incidentally, also makes a distinction between the simplicity and austerity of Brahmanas living in villages and the luxury of the townsfolk.[1] From these numerous references, it is clear that most of these towns and commercial centres were then abodes of wealth and luxury.

This chapter may be concluded with a short account of the divisions of ancient Bengal. Unfortunately, however, the boundaries of some of these units cannot be fixed with any degree of precision for they varied from time to time owing to political and administrative exigencies so that the extent of even well-known divisions like Gauḍa, Vaṅga and Rādhā were different at different times. Again sometimes, the different divisions were called after the names of the tribes originally inhabiting them. These also had no fixed boundaries. With the territorial extension of a state based on a particular janapada extended that janapada's geographical limits. Therefore all that is possible, at the present state of our knowledge, is to name the more important divisions with a broad outline of their location and boundaries. These were Gauḍa, Puṇḍravardhana, Varendra or Varendrī, Rādhā, Tāmralipta, Vaṅga, Vaṅgāla, Samataṭa, Candradvīpa and Harikela.

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1. IB., p. 54

Gauda

There are several references to Gauda in early epigraphic and literary sources.[1] However, the Brhat Samhitā is the first text which gives some definite information as regards its location.[2] It clearly distinguishes it not only from Paundra, Tāmaliptika, Vaṅga, Samataṭa, but also from Vardhamāna. Again the Bhavishya Purāṇa defines Gauda as a Kingdom lying to the north of Vardhamāna and south of the Padmā river.[3] This, incidentally, corresponds to Kingdom of Gauda, mentioned in Hiuen Tsang's accounts.[4] It had its capital at Karṇasuvarṇa, situated some twelve miles to the south of present Murshidabad district. Sometimes, however, Gauda denoted the whole of Bengal and from Devapāla onwards the title Gaudeśvara becomes the official title of the reigning emperors.[5]

Puṇḍravardhana or Paundra

This ancient division derives its name from that of the Puṇḍra tribe mentioned in the Purāṇas[6] and the Mahābhārata.[7] All available sources agree in placing this division in North Bengal. But this is only true in a broad sense, for in some Sena inscriptions the Khādi region in Southern Bengal is included into Puṇḍravardhana bhukti.[8]

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1. E.I. XIV. p. 117; Arthaś 13. p.; Kāmasutra, Banares ed. pp.115-294.
2. Brhat Samhitā,- XIV . 6-8.
3. Cf IA, 1891, p.419.
4. Watters, II, 192,340.
5. H.B. P.13.
6. Matsya Purāṇa, ch. 48 v 77; Vāyu Purāṇa, ch. 99, 11. 85.
7. Mahā II, 30.
8. I.B., pp. 56; 169.

Again a copper plate belonging to the reign of Viśvarūpasena extends the eastern limit of Pundravardhana to the sea, apparently the Bay of Bengal and the estuary of the Meghnā.[1] Varendrī or Varendra was the metropolitan district of Pundravardhana, as the city of Paundravardhanapura, - the Pundranagara of the Mahāsthān Brāhmi inscription[2] was situated within it. The Rāmacarita definitely locates it between the rivers Ganges and the Karatoyā.[3]

Literary and epigraphic evidence proves that ancient Varendrī corresponds to portions of Bogura, Dinajpur and also possibly part of the Pabna districts of the Rajshahi division.

Rādhā

This famous janapada roughly corresponds to modern west Bengal. In ancient times, Rādhā was divided into two parts - south and north and the river Ajaya is usually regarded as forming the boundary between the two. Tāmralipta was another division within the limits of modern west Bengal. Its capital was the famous commercial port of Tāmralipti - the Tāmalites of Ptolemy and identified with modern Tāmluk. According to Hiuen Tsang, it lay over 900 li (about 150 miles) from Samataṭa and was about 1400 li (about 233 miles) in circuit. "The land was low and moist" forming the termination point for land and water routes.[4]

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1. Ibid. p. 146, line 47.
2. E.I. XXI, pp. 83 ff.
3. R.C. Kavi prasasti.
4. Beal records - II. 200-201.

Vaṅga

The settlement of a people known as Vaṅgas in later Vedic works and the Rāmāyaṇa and Mahābhārata, was a well-known division of ancient Bengal. The Arthśāstra mentions the different delicate varieties of fabrics manufactured in Vaṅga.[1] The exact limits of Vaṅga, varied from time to time, but broadly speaking it can be located in the south-east of Bengal. From the eleventh century onwards, we come across another division called Vaṅgāldeśa in inscriptions and literary works. From this, it is presumed that Vaṅga and Vaṅgāldeśa represented two separate divisions, though it is not possible to fix their exact location, from the sources at our disposal. It may be surmised, however, that Vaṅgāldeśa comprised almost the whole of eastern Bengal including that portion of southern Bengal which borders the sea.[2]

Samataṭa

The Geography of Vaṅga was closely connected with that of Samataṭa which finds mention in the Allahabad. Pillar inscription of Samudra Gupta[3] as a border kingdom and also in later records. Its exact limits in the Gupta period are not known, though it is certain that in later times Samataṭa and Vaṅga formed separate divisions.[4] Hiuen Tsang visited this part of Bengal and according to his accounts, it was a low and moist country on the sea-side that lay south of Kāmarupa.

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1. Arthaś. tr. II. 11. 102, p. 119.
2. c.f. B. I. p. 142.
3. C.I.I. III p. 8, 14.
4. C.f. H.B. p.17.

Samatata would thus roughly correspond to modern Comilla and Chittagong districts and probably also part of central Bengal.[1]

Two other divisions of ancient Bengal were Candradvīpa, situated in the modern Barisal district and Harikela, which according to available evidence, was a country bordering the eastern most limit of Bengal, as it was constituted in those days.

Of all the divisions, mentioned above, the most important seem to have been Gauḍa, Vaṅga and Puṇḍravardhana. These terms, however, had no fixed connotation and were, especially Gauḍa, and Vaṅga, very often used to denote not only a part, but the whole of Bengal. At times the smaller and less important divisions were merged into these three important divisions.

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1. C.f. H. B., p. 17.

CHAPTER II

AGRICULTURE AND STOCKBREEDING

Of the three important occupations constituting Vārtā- agriculture, animal husbandry and trade - the first is given the pride of place in almost all ancient Indian treatises on law and economics.[1] In Bengal it is considered the primary source of wealth and its fundamental importance in the economic life has been the most characteristic feature of its history for many centuries. In fact it is still the basis of the economy of Bengal. It not only provides most of the food requirements and gives employment to the great majority of its people, but it also furnishes certain raw materials which constitute the basis of the economy in commerce and industry. There are indeed many references to officers, merchants and artisans in the different sources of our period. Yet the economic life of ancient Bengal was mainly agricultural, as it is even today. From the Candīkāvya of Kavikankan Mukundarāma, we learn that the poet, though Brahmana by caste, lived personally doing the work of cultivation.[2] In the sanskrit work known as Parāśara-Saṃhitā, a high place was given to agriculture. Herein advice is given even to Brahmanas to carry on agriculture with zeal.[3] Cāṣāpāla also places agriculture at the top of all professions.[4]

The beginning of agriculture and the cultivation of the soil as a means of sustanance go back to prehistoric times.[5]

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1. Arthaś. text 4.1. p. 5.; Kāmandakiya Nītisāra, II. 20; Raghu, XVI. 2.
2. Kavikankan Candī. p. 22.
3. Institute of Parāśara. tr. K.K. Bhattacarya Ch. II, p. 10.
4. Cāsāpāla by Rameśvar, C.U. Ms. No. 2455 Fol. 3.
5. H. B. p. 562.

The rich alluvial plains of Bengal, watered by three important rivers: the Ganges, the Brahmaputra, the Meghnā and their numerous tributaries and provided at each flood time with a rich layer of silt, contain adequate amounts of organic material, necessary for prosperous farming. Thus it "seems very probable that in the initial stage both settlements and agriculture followed the courses of the great river systems of the province which acted as powerful fertilizing agents of the soil in their neighbourhood."[1] But gradually cultivation was extended to other parts of the country. As we have discussed in a subsequent chapter,[2] by the time of the Guptas, owing to various reasons, especially the growth of population the demand for agricultural land had risen to such an extent that cultivable and uncultivable land was gradually brought under the plough. This extension of cultivation is amply borne out by the copper plate inscriptions of the fifth, sixth and seventh centuries. Most of the land sold or donated by these inscriptions is described as Aprada[3] (unsettled) Aprahata[4] (uncultivated) and Khila[5] (fallow). The purchasers applied for waste land, perhaps because of its cheap price. Moreover exemption from tax was more easily obtained from the state in the case of religious donations of uncultivated land, than in land already under cultivation.

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1. H.B. p. 648
2. Infra pp. 160 - 163.
3. Dāmodarpur C.P. No. 1,2,3,4. E.I. XV p. 129 ff. also see infra p. 107.
4. Dāmodarpur C.P. No. 3 E.I. XV p. 134 ff
5. Dāmodarpur C.P. E.I. XV p. 129 ff; Gunāighar C.P. I.H.Q. vol VI, p 40; Baigrām C.P. E.I. XXI. p. 78.

Even where the purchaser applies for both building land (vāstu) and fallow land, the area of the latter is about twelve times larger than the former.[1] Such was the pressure on cultivated agricultural land that even water-logged forest regions sometimes became an object of donation. Thus the Gunaighar grant of Vainyagupta refers to five plots of land donated to a Buddhist monastery as Śūnyapratikara-hajjika-bhūmī (water logged waste land exempt from any tax)[2]. From a somewhat later inscription we know that land in the forest region full of deer, buffaloes, tigers, serpants etc. was given to some Brahmanas for their maintenance by King Lokanātha.[3] These waste lands were donated free from royal dues, possibly with a view to encourage the donee to bring them under cultivation and thus make them productive.

The great importance of agriculture in our period is reflected in our inscriptions in yet another way. The land is almost always measured according to one or more standards which usually have some association with agriculture. Thus Kulya,[1] droṇa, 2. āḍhaka[3] etc. referred to in most of the inscriptions are known to be seed measures. The hala measure mentioned in many inscriptions such as Dhulla copper plate of Srīcandra[7] and the Bhātera copper plate of Govindakeśava[8] is similarly associated with the main agricultural implement - the plough.

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1. Baigrām C.P. E.I. XXI. p.78.
2. I.H.Q. vol. vi p.40.
3. E.I. XV. 307, 311.
4. Pāhārpur C.P. E.I. XX p. 61, Baigrām C.P. EI. XXI p - 78,
5. Ibid.
6. Anuliā C.P. I.B. p. 81; Tarpaṇḍighi C.P. I.B. p. 99.
7. I.B. p. - 165.
8. E.I. XIX p. 277.

The use of such terms shows the importance of practical systems of land measurement, especially for taxation purposes. The frequent reference to the cultivation of waste or fallow land "suggest the inference that the three centuries to which these inscriptions relate witnessed a steady extension of cultivation and rural settlement."[1] It seems likely, though we have no positive evidence to prove it, that this movement of agricultural extension commenced much earlier and continued with intermittent force and varying effect from century to century and from region to region. The pressure of a growing population, the growing desire of Brahmanas to own land and religious zeal of the Kings - all these factors contributed in different ways to draw attention to some of the waste or fallow lands.

The decline of trade and commerce in Bengal after the Guptas may also have contributed to the increasing reliance upon agriculture, and from the seventh century A.D. onwards, it had turned out to be more strongly than ever the chief means of livelihood for the bulk of the population. It is clear from the inscriptions ranging from the eight to thirteenth century that Kṣetrakarān, Karṣakah etc. formed a distinct class and their influence in the economic life of the society and the state in general may easily be inferred from the fact that whenever a piece of land was transferred to an individual or institution by way of either donation or sale, apart from bringing it to the notice of members of the royal family, high officials, Brahmanas and so on, the King was bound to inform these cultivators as well.

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1. H.B.p.646.

This shows that these cultivators had a vital role to play in the economic life of the community and enjoyed considerable position in matters of local administration.[1.]

Agricultural produce depends largely upon the physical features and climatic conditions of a country. The rich alluvial plains of Bengal, washed by the waters of the three main rivers and their numerous tributaries, produced a variety of grains, fruit and flowers. Moreover, Bengal is copiously watered by two monsoons. The epigraphic and literary sources are full of references to the fertility of its soil and the rich variety of crops grown there. In the seventh Century A.D., when the Chinese traveller Hiuen Tsang visited Bengal, he noticed the regular and intensive cultivation of land and the production of grains, fruits and flowers in abundance.[2.] His testimony is further corroborated by ~~the~~ Sandhyākaranandī's beautiful description of Varendrī (north Bengal) in the Rāmacarita.[3.]

Of all the ancient literary sources, the Rēmacarita is perhaps the first to give a full account of the flora and fauna of ancient Bengal. Many of the Sena inscriptions also indicate the prosperous condition of farming.[4.] Again some of the poems in the Saduktikarnāmrta despict the picture of plenty and prosperity in villages after the harvest is over.[5.]

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1. B.I. p. 162
2. Beal records. II. pp. 191, 194, 199, 200-201.
3. R.C. III verse 17, p. 91
4. IB. pp. 85 and p. 124. etc.
5. Śrīdharadāsa - Saduktikarnāmrta Ed. by Ramavatara Sharma. 2.136 - 5.

The Mainamati copper-plate of Raṇavankamalla Harikeladeva also refers to "agriculture rich with harvest".[1.]

But all these must not lead us to think that all land was fertile and fit for cultivation. There was some that was sterile and unfit for cultivation. In the Bhuvaneśvar Praśasti, such sterile soil in Uttara Rādhā is described as ǰangala ƥatha, where there was no water.[2.] These lands needed artificial irrigation. Moreover, the failure of timely rainfall often caused untold hardship to farmers. To cope with all these problems, great care was given to irrigation. The numerous tanks in many parts of north Bengal - Mahīpāla, Rāmsāgar, Prānsāgar etc. - were most probably constructed by the rulers for this purpose. The people also knew the technique of sinking wells in order to reach deep-flowing streams and sometimes they deflected the course of the rivers so that they might supply canals. They also knew how to regulate the flow of these waters or to make these canals overflow and so swamp the rice fields. William Willcocks defines this ancient system of irrigation in Bengal as "overflow irrigation".[4.] The characteristic features of this type of irrigation were:-

1. The canals were broad and shallow, carrying the crest waters of the river floods, rich in fine clay, and free from coarse sand.

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1. I.H.Q. Vol. IX. p. 282. line 15.
2. E.I. vi. pp 203-207; c.f. B.C. Sen, Some historical aspects of the Inscriptions of Bengal, p. 59.
3. N. Ahmed - op cit; p. 158; R.C. III. verse 22 & p. 108. Calcutta 1930.
4. W. Willcocks - Ancient systems of irrigation in Bengal - pp. 4 ff

2. The canals were long and continuous and fairly parallel to each other and at the right distance from each other for purposes of irrigation.

3. The irrigation was effected by cuts in the banks of canals, which were closed when the flood was over.[1.]

The mention of Khāri, Khārika, Ṭānika, Strotika, ḍola, ḍolika[2.] etc. in connexion with the boundaries of the donated lands in our inscriptions indicates that, although Bengal was watered by several rivers and two monsoons, some areas still required irrigation, perhaps for raising a second crop in winter, but primarily to bring water where where it was most needed.

While farmers used irrigation to raise the yield of crop, they also made some use of manure and fertilizers. For the former they used animal dung and let it dry for some time, while for the latter, they made use of liquid manure and various animal and vegetable products.[3.] So as not to exhaust the soil, they practised crop rotation and the fallowing of land.[4.]

The ordinary Bengali peasant of today is so conservative in his methods that we may assume that the farmers of ancient days tilled their land more or less as they do now. Agricultural implements were primitive and very commonplace.

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1. W. Willcocks. op. cit ; p. 5.
2. [illegible] pp. 171, G.L.M, 15, 16; E.I. XVIII, p. 79, etc.
3. T.C. Das Gupta - Aspects of Bengali Soc[illegible] from old Bengali literature, pp. 237 ff.
4. Ibid.

In spite of the progress made in modern times, many of these are still used by the average cultivator. They ploughed their land using a swing plough drawn by two oxen. This type of plough was identical with that used today. Made of two lengths of hard wood joined together at an obtuse angle, the plough was equipped with a handle on its upper part, while the pointed lower end was well sharpened or usually reinforced with a strip of wrought iron. A carved pole was hinged into the body of this construction, ending in a yoke which rested on the necks of the oxen and was held in place both by the animals' humps and by an individual collar.

The corn was harvested by means of wide-bladed sickles. It was then laid on the ground in bundles and threshed by oxen.[1] Then came the winnowing by tossing the corn in the wind. The Amarakośa gives details about husking of corn.[2] Just as in the village of today a pedal or grinding mill was used for pounding the corn and then the husk was separated from the grain by a winnowing basket. Literary sources, specially the song of Śiva by Rāmāi Pandit gives a list of the different agricultural implements used in ancient Bengal.[3] It mentions the plough share (Pāl) cleaver (dā) sickle (Kāste) frame (Pasi), ladder (Mai) stick (Pācanbadi) and rice-husking pedal (Dhenki), besides many other implements in connexion with agriculture.

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1. R.C. Kavi Prasasti, v. 13.
2. Amara ix. 8. 10. 12-15, 22.23, pp. 202-205
3. V.S.P. Part I. p. 113.

No doubt most of these were locally manufactured in the workshop of the village blacksmith and carpenter. Cāsāpālā of Rameśvar also gives a detailed account of the different processes through which these implements were manufactured.[1] In view of the paucity of materials at our disposal, it is indeed very diffifult to draw any comprehensive picture of the agricultural practice as it prevailed in ancient Bengal. However, old Bengali literature, specially the sayings of Dāk and Khanā, besides giving details of cultivation, contain many adages which embody the agricultural wisdom of the people. There is no doubt that the cultivators committed to memory most of these aphorisms and followed the principles contained in them in their agricultural operations. Very little is known with certainty about the life and time of the two famous female astrologers mentioned above, and although D.C. Sen has ascribed them to a period between eighth to twelfth century A.D.[2]; the language in which these aphorisms are written is definitely of later origin. It corresponds more to modern Bengali than either to Sanskrit or old and middle Bengali.

It is, however, possible that these sayings were current in Bengal between eighth and twelfth centrury A.D., but, in course of time and in the process of being transmitted from one generation to another, they were gradually modernized in form, though their meaning remained the same.

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1. T.C. Das Gupta, op. cit., p. 230.
2. V.S.P., part I, pp. 1 ff.

It is an interesting feature that astrology formed an important element in these aphorisms and the technical terms employed in them must have been highly useful to the peasant from the practical point of view. "It is not exactly known how or whence this knowledge has come into the possession of Bengali peasants, but this much may be surmised that the tradition points to a foreign origin". [1.] It may, however, be argued that the cultivators could appreciate the essential principles of the science of astrology, disseminated among the masses by means of couplets which could be easily understood and remembered. A few specimens are quoted below by way of illustration:-

1. "When according to astrological calculations, in any particular year Saturn occupies the highest position and Mars is next to him, then agriculture will not flourish that year." [2.]
2. If the planet mercury be ascendant and Venus be next to him, then no doubt the fields will be overfull with crops" [3.]

The above aphorisms are only two out of many in which directions about agriculture are given in the technical phraseology of astrology. Apart from this, the sayings of Khanā furnish many other instructions as to the different months suitable for sowing seeds of different kinds. The weather forecast in these is so accurate that the cultivators followed it with great advantage. Specially interesting are the agricultural superstitions, in respect of sowing seeds and plucking fruits, by which the illiterate peasants were guided.

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1. T. C. Das Gupta op cit. p. 224.
2. Ibid.
3. Ibid.

In spite of much that can be said against superstitions in general, we have to admit that most of these aphorisms were based on more or less practical observations and as a consequence the results were surprisingly accurate. The peasants got by heart these sayings of Khanā and became accustomed to quote the couplets frequently in their everyday life or field work.

The crops grown in our period were numerous and no doubt, partly the same as those still produced in different parts of Bengal. But here we may mention only those of which we find definite mention in epigraphic or literary sources. The land grants were directly concerned with the sale or donation of land and therefore whatever reference we get of agricultural products in these, is purely accidental. Similarly the information furnished by literary sources and foreign accounts is by no means exhaustive. It seems, however certain that paddy was cultivated from a remote antiquity as the staple food-crop of the people, mainly because it was most suited to the conditions of the soil and climate. The earliest reference to this important agricultural product is found in the Mahāsthān Brāhmī inscription,[1] which is ascribed on paleographic grounds to the second or third century B.C. We are told that some ruler of the Mauryān period issued an order to the Mahāmātra of Puṇḍranagara with a view to relieve the distress caused by famine, known as Samvaṅgīyas. In this connection mention is made of the distribution of paddy from the people

1. E.I. XXI, pp. 83 ff.

the state granary to the famine-stricken people. But strangely enough, it was distributed neither as a gift nor in lieu of any work, but on the direct understanding that it should be returned to the district granary of the state as soon as the days of plenty and prosperity were restored. It is also not clear from the inscription, whether this distribution of unhusked rice was meant to be used as seed or as food. Nevertheless, it is clear from the inscription, that paddy formed the staple food crop and the state granary had to stock huge quantities in order to meet any future contingency.

In the fifth century A.D., Kālidāsa refers to paddy cultivation in Vaṅga.[1] In later times, the Rāmacarita mentions paddy plants of various kinds grown in Varendrī and in another context refers to the threshing floor where reaped corns were spread out and threshed by means of bullocks which went round and round over them.[2] Other literary sources such as the Cāṣāpālā,[3] Song of Śiva,[4] the Saduktikarṇāmṛta[5] and the sayings of Khanā[6] contain many references to this major crop of Bengal. In his accounts, Ibn Batuta states that Bengal is a vast country and abounds in rice.[7]

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1. Raghu. IV. 37.
2. R.C. III. 17 p. 91. Kaviprasasti, V. 13.
3. Cāṣāpālā - op. cit. p.
4. V.S.P. Part I p. 113.
5. S.K.M. 2.84.3 ; 3; 2.136.5.
6. T.C. Das Gupta - op. cit. pp. 225-26, 239, 240, 241, 242, etc.
7. The Rehla of Ibn Batuta, tr. M. Hussain, p. 234

Inscriptions, particularly those of the Senas, give beautiful descriptions of paddy-fields. Thus the Anuliā copper plate of Laksmana Sena speaks of the harvest of Śāli rice in Autumn.[1] In another line of the same inscription we are told that the King gave away to Brahmanas myriads of excellent villages with land producing huge quantities of paddy.[2] Another reference to this crop is found in the Edilpur copper plate of Kesavasena.[3] It is interesting to note that in these inscriptions, paddy is referred to in general terms as Śāli, which is however, only one of the best among the many varieties grown in different parts of Bengal. Some terracotta plaques found at Pāhārpur depict paddy fields.[4]

Generally speaking, three rice crops are grown during the course of the year in Bengal. The āman crop is by far the most important.

It consists mostly of lowland rice which is sown in May and June and reaped in November or December. The āus crop ranks second in importance. It comprises mainly highland types which are sown in April and harvested in August or September. A third rice-crop of minor importance is known as boro or summer crop and is sown between āman and āus during November and is reaped in February. Various districts and sub-divisions have a large number of local varieties of each of these crops, which must have been true of ancient times also. About 95% of the area under cultivation needs no irrigation and the success of the crop largely depends upon climatic factors, specially the character of rainfall.[5]

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1. I.B. p. 85 line 10.
2. Ibid, lines 24-25.
3. Ibid. p. 124.
4. M.A.S.I. (55-56) p. 67. and plates XLd - 4; XLII a.5.
5. N.Ahmed - op cit. - p 122.

To the cultivators, according to the time-honoured belief, it is the God Indra, the dispenser of rains, upon whose freaks depend all their hopes and fears. At the time of excessive draught, they pray and invoke the mercy of Indra to shower the nectary rains so that people may live by cultivation.[1] Khanā furnishes us with the different signs by which the ordinary cultivator could predict whether it was going to rain and at what times it was beneficial or otherwise for the crops. For example, if rainbow is seen in the eastern sky during the rainy season, surely there will be too much rain and consequent overflooding of the land.[2] Again, when in the beginning of the month of Vaiśākha (April-May) the wind blows from the north-east, you may be sure of heavy rains that year.[3]

The types of paddy known in ancient Bengal were so numerous that it is difficult to give an exhaustive list of the names. In the Śūṇya Purāṇa, Rāmāi Paṇḍit states that the species of paddy are no less than thousand in number.[4] His view, though, seems to be exaggerated but is nevertheless true to some extent, for, in Rāmeśvara's Śivāyana also, we find mention of about seventy-five varieties.[5] Many of these might have been different names given to one and the same variety grown in different localities. It is interesting to note, however, that many varieties mentioned in the two sources, just mentioned, such as Parbatjirā Jhiṅgāśāl, Gopālbhog, Marichbuṭi, Hookooli

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1. V.S.P. Part I. p. 136
2. T.C. Das Gupta op cit p. 231
3. Ibid p 231
4. Ibid p 116
5. V. S. P part I. p. 136

Kalmilatā, Kelejirā etc. are even now used in Bengal to denote the different varieties of Āman and Āus paddy grown in different parts of the country.[1]

Kālidāsa's Raghuvaṁśa contains an indirect reference to the method of rice cultivation in Bengal. Describing Raghu's conquest of the Vaṅgas, the poet remarks that Raghu uprooted and replanted them (Utkhāta-Pratiropita) like rice plants.[2] However, he refers only to the type of paddy known as śāli, and it is not known whether other types were also replanted. The practice of growing paddy in a nursery bed and replanting it in flooded fields afterwards, was thus familiar to Bengal at least as early as the 5th century A.D. Side by side, two other methods - broadcast and by drill also seem to be current. At present all the three systems of rice cultivation are known and practised in Bengal, although the best yield and quality are obtained from replanted paddy. It is usually the least risky and most profitable.[3] The different methods of reaping and harvesting of paddy in ancient Bengal also appear to have been similar to these practised at present.

Sugar cane is another ancient product of Bengal and its cultivation has continued throughout the centuries. The best varieties are still produced in north Bengal. The suitability of the soil and climate have made this region one of the renowned sugar-producing areas in the whole of India. Sugar cane was generally grown in those areas where rice was cultivated and just as today it was probably grown at a

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1. T.C. Das Gupta, op. cit., p. 254 ff.
2. Raghu, iv. 37.
3. H.B., p. 652; N.Ahmed, op. cit., p. 71.

somewhat higher level than the rice fields. Canes were planted or set in December or January, after the ground had been ploughed five or six times and the crop was harvested after a year. The classical writer Aelian refers to a kind of honey expressed from reeds which grew among the Prasioi.[1] It is further recorded by Lucan that the Indians near the Ganges used to quaff sweet juices from tender reeds.[2] A kind of sugar-cane is referred to by Suśruta and Caraka as Paundraka and most commentators of Sanskrit lexicons agree that it was so named because it was grown in the Pundra country.[3] This interpretation is further corroborated by the fact that the Rāmacarita also speaks of the excellent varieties of sugar-cane grown in Varendrī.[4] In later times the Sadukti-Karṇāmṛta contains a poem describing the sweet aroma of new Guda (molasses) made from the juice of sugar-cane and also mentions ikṣu-yantra a machine for pressing sugar-canes.[5] All these facts point to the conclusion that certain varieties of sugar-cane were cultivated in Bengal from very early times. It is not improbable, as Rai Bahadur J.C. Roy has pointed out, that the term Paundraka " has given rise to the modern vernacular names of Paundiā, Paunḍā, Puṇḍi, Puri etc. - a celebrated variety cultivated in almost all parts of the country.[6]

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1. H.B. p. 650.
2. Mc Crindle , Ancient India as described by Megasthenes and Arian - p. 122 f.n.3.
3. J.B.O.R.S. 1918, pp. 437-38.
4. R.C. V. verse 176, p. 91.
5. C.F., B.I. p. 130.
6. J.B.O.R.S. 1918. p. 437.

In the light of these data it is astonishing that the land grants of our times are absolutely silent on this important agricultural product.

Besides the above, we have references to a large number of other crops grown in Bengal in our period. Barley (yava) is mentioned in a poem in the Saduktikarnāmṛta.[1] Pulses such as split peas (kalāi) and kidney beans (mug), maize and mustard are mentioned in the sayings of Khanā.[2] Mustard is also indirectly referred to in the Vappaghoṣavāṭa grant of Jayanāga, which speaks of a Sarṣapa-Ṭānaka (mustard channel) in the Audambarika Viṣaya of Karṇasuvarṇa.[3] In order to ensure a bumper crop Khanā advises to sow Kalāi and mug in the same field where mustard has been sown before.[4]

Maize was once sold at a very high price in Bengal for according to one of the sayings of Khanā - "if you want to earn money and become rich, then sow maize in the month of Caitra (March-April)".[5]

Apart from cereals a number of vegetables and fruits were also cultivated. The following vegetables are mentioned in the sayings of Khanā, - brinjals, long gourd, raddish, arum, Trichosanthes dioeca (paṭal), chilli, turmeric etc.[6]

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1. S.K.M., 2. 136.5.
2. T.C. Das Gupta, op. cit., p. 241-42.
3. E.I. XVIII pp. 60 ff.
4. T.C. Das Gupta, op cit, pp. 242 f.n.1
5. Ibid. p.243. f.n. 1.
6. Ibid pp. 242 ff.

Fruit trees like mango (Āmra), bread fruit, (Panasā), pomegranate (dālimba) plantain, bassia latifolia (madhuka), date (Kharjura) citron (vija) figs (parkati), tamarind , cocoanut etc. were also widely cultivated. The mango and breadfruit are mentioned in large number of Pāla and Sena inscriptions. [1.] Hiuen Tsang refers to the abundant growth of Panasā in Puṇḍravardhana and gives a detailed account of the fruit, which was highly popular. [2.] The Govindapur copper plate of Laksmanasena [3.] and the Calcutta Sāhityaparisad ___ copper-plate of Viśvarūpasena [4.] have references to pomegranates. The plantain tree is frequently depicted in the Pāhārpur terracotta plaques. [5.] It is also found among the sculptures, for instance in the Caṇḍī images of the Rajshahi museum. [6.] It figures very prominantly in the sayings of Khanā [7.] Almost every house had some plantain trees. They are valued not merely for their delicious fruits, but are useful in many other ways as well. The skin is burnt to form ashes for cleaning purposes in place of soap in the country side even now. Moreover, the plant

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1. G.L.M. pp.9, 33, 55, IB. p.1; 14, 57.
2. Beal records, II p. 194.
3. IB. p. 97.
4. Ibid p. 178.
5. M. A.S.I. (55-57) plates IVa.
6. H.B. p. 451 and plate LX XVII, in page 181.
7. T.C. Das Gupta - op cit, pp. 246 - 248.

is held auspicious on religious and festive occasions by the Hindus. From a perusal of the sayings of Khanā it seems apparent that the people used to derive great benefit from these trees. The Vija and Kharjura are mentioned in the Khālimpur copper plates [1] and parkati in the Kotālipāḍa plate of Dharmāditya. [2] Madhuka was grown mainly in north Bengal and is mentioned in the Rāmacarita [3] and the Rāmaganj copper-plate of Iśvaraghoṣa. [4] Tamarind is referred to in the sayings of Khanā.

The coconut was perhaps imported from South East Asia [5] and is not mentioned in earlier sources. But we have ample evidence in the inscriptions of the Khadga [6] Candras [7] Varmans [8] and more particularly in these of the Senas, [9] that from the 8th century onwards it was extensively grown, especially in the districts near the sea and on saline soil.

The trees usually begin to bear fruit from the eighth year. They flower in November and again in April. Nuts ripen every month but the main plucking season is from May to September. The main commercial products from the tree are oil and fibre. Green coconuts also form a favourite drink in the summer. Although coconut grows best in coastal areas, some amount was grown in northern Bengal also,

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1. G.L.M. p. 9.
2. Select Ins. pp. 354. ff.
3. R.C. III 2. p. 94.
4. IB. pp. 154 ff
5. A.L. Basham , Wonder that was India. p. 193.
6. M.A.S.B. Vol. I. p. 85 ff.
7. IB. p. 1. ff.
8. Ibid. p. 14 ff.
9. Ibid. 68; 81; 92; 99; 140 etc.

for the Rāmacarita refers to Varendrī as the congenial soil for coconut in the world.[1]

Another valued agricultural product was the areca (guvāka) whose hard, slightly narcotic nut, broken up, mixed with lime and other ingredients and wrapped in the leaf of the betel-vine, formed the tāmbula or cheqing quid. Suitable soils for its cultivation are high, sandy and rich in salt. The trees flower in February or March and the nuts are gathered from September to December. The earliest reference to its cultivation is found in the No. 2 Ashrāfpur copper-plate of Devakadga which specifically states that the donee should enjoy the donated land by the cultivation of areca palms and coconuts.[2] The Rāmacarita also refers to its cultivation.[3] Again we know from the Calcutta Sāhitya Parisad copper plate of Viśvarūpasena that the eleven plots of land donated by the grant had many areca palms and that these were regarded as a source of wealth. Line 53 of this inscription clearly states that the donee was to enjoy the land "together with the price of areca-nuts."[4] Reference to its cultivation can also be traced in the records of the Candras[5] and Varmans.[6] In later literature, such as the Manasāmangal[7] and Candīmangal Kāvyas,[8] we learn of the lucrative barter trade carried on by Bengali merchants in areca and coconut.

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1. R.C. III verse 19. p. 93.
2. M.A.S.B. Vol. I. p. 85 ff.
3. R.C. III verse 19 - p. 93.
4. IB, p. 178
5. Ibid. p. 1
6. Ibid. p. 14.
7. Manasa Mangal ed. D. Chakravartty. pp. 38 - 90.
8. Kavikankan Candi p. 191.

Much of these are no doubt highly exaggerated accounts. Yet on the basis of the inscriptional evidence cited above, we can conclude that areca and coconut plantations were regular features of the agriculture of Bengal between c. 1100 and 1300 A.D. and the state derived considerable revenue from these two sources.

Betel vines were also grown in the form of plantations (barajas) and, under the Senas, formed a source of revenue to the state.[1] Its cultivation was in the hands of a class of people known as Barai or Bārujīvi. From the Betkā Vāsudeva image inscription of the reign of Govindacandradeva we know that in the villages of Pāikpāḍa and Betkā in the district of Dacca there lived betel-leaf cultivators from very early times.[2] They form a separate class throughout Bengal even now and the lucrative profession of cultivating and selling of the betel leaves have made this class wealthy and prosperous. The tank from which the image was discovered is still surrounded on all sides by habitations of Barais or betel-leaf planters. There are detailed instructions on the cultivation of betel-leaf plantations in the sayings of Khanā also.[3] Betel-leaves were in great demand in other parts of India as is clear from the Rājataraṅgiṇī.[4]

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1. IB. 141, 178, 180 etc.
2. E.I. XXVII p. 20 ff.
3. T.C. Das Gupta, op. cit. p. 243.
4. Rājat, Vol. I VII. 190 - 194. p. 284.

Because of their highly perishable nature, great care had to be taken in exporting these to other parts of India. As a result it was often sold at an exorbitant price and Bengal as one of the most important regions for its cultivation, must have derived great profit from its trade.

Among spices grown in Bengal, the Periplus specially mentions malaba thrum and spikenard, which were exported in large quantities to the West.[1] These were of excellent quality and grown on an extensive scale in the mountainous regions of the north. Large quantities of cardamom were also grown in Varendrī.[2]

Cotton was undoubtedly the main commercial crop of ancient Bengal. We have evidence of its cultivation in different sources. In enumerating the different varieties of textiles manufactured in different areas, Kauṭilya speaking very highly of Kārpāsika - a variety of cloth made of indigenous cotton in Vaṅga.[3] The Deopādā inscription of Vijayasena testifies to the fact that the ordinary villagers were familiar with seeds of cotton.[4] The early Caryāpadas also refer to cotton cultivation.[5] Referring to the people of Bengal Marco Polo says "They grew cotton in which they derive great trade."[6]

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1. Periplus, p. 47.
2. B.I. p. 173.
3. Arthaś text II. 11.115. p. 55. tr. p. 120.
4. IB. p. 48. verse, 23.
5. H.B.p 651, fn. 4.
6. Marco Polo, II. 115.

As we have discussed in the Chapter on crafts and industries,[1] cotton provided the raw material for the manufacture of cotton fabrics which appear to have a continuous history from about the beginning of the Christian Era, to the early nineteenth century. The raw material of which the fine Dacca Muslins were made was said to be entirely the product of the district. The ancient plant is an annual one attaining a height of about five feet and is said to have belonged to the species Gossipium Herbaceum and differed from the common Cotton plant in certain respects.[2] There is some conflicting opinion about the exact area of the finest cotton in the past, but the geographic indications combined with historical references point to the area from Sonārgāon to Kāpāsia, Toke and Jangalbāri and on higher tracts along the old Brahmaputra and Meghnā,[3] - in short the northern and eastern part of the modern district of Dacca.

In late medieaval Bengali literature, we have reference to different varieties of pāṭ-sādi[4]. In Sanskrit paṭṭa-śastra denotes woven silk.[5] It is therefore possible that some amount of silk based on mulberry trees was also produced in parts of north Bengal. But the term pāṭ in modern Bengali means jute.

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1. Infra. - p. 178.
2. J. Taylor - A sketch of the Topography and Statistics of Dacca, Calcutta. 1840. p.130.
3. Ibid. p. 132.
4. T.C. Das Gupta - op. cit - pp 277-279.
5. M. Williams, Sanskrit English Dictionary.

Thus though we have no definite proof of its cultivation in our period, it is perhaps not quite unreasonable to infer from the references of Kāla-pāt sāḍi, Āgun pāt Sāḍi etc. that jute was known and cultivated, though perhaps not on such an extensive scale as in modern times. It is also included among the different products mentioned in the sayings of Khanā.[1.]

Regarding flowers the Rāmacarita describes Varendrī as a land of excellent flowers and among the countless varieties grown there mentions the Aśoka, Keśara, Madhuka, Kanaka, Ketaka, Mālatī, Nāgakeśara and Lotus.[2.]

Trees which supplied medicines or fruit such as Āmlakī, Śrīphala Haritakī etc. were also known to have been cultivated in ancient Bengal.[3.]

Another product used mainly for construction of houses and manufacture of household articles like baskets, sun-shades, winnowing baskets, mats, fans etc. was bamboo.[4.] It was also widely used for fencing the fields. It usually grows along streams and rivers at lower levels. But some kinds are found as high as 2000 ft.

Stockbreeding

The basic livestock of the peasant was cattle, used for ploughing transport and various dairy products. Wealth was often measured on the basis of the number of cattle in one's possession. For the

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1. T.C. Das Gupta, op.cit. p. 243.
2. R.C. III Verses 20,21, P. 93-95.
3. Ibid III 12,16. 16 etc.
4. Ibid Ch. III V. 17. p. 92; T.C. Das Gupta - op. cit. p. 237.

For the sake of religious merit, too, the King would often make a gift of milch cows and bulls to religious institutions or to Brahmanas Even as late as the fifteenth century, Raghunandana assigns in the Prāyaścittatattvam the foremost place to the cow in point of sanctity as a gift to a priest.[1.]

Villagers sometimes employed a communal cowherd, who drove the cattle branded with the owner's marks every morning to the pastures and waste beyond the ploughed fields and returned with them at dusk. The expression tṛṇaputigocaraparyanta mentioned in most of the Pāla and Sena land grants [2.] suggest that the pasture grounds produced various kinds of grass for livestock and were usually located in a corner of the village or along its boundaries. "We have no means of comparing the yield of cattle of the ancient days with that of their scraggy modern counterparts, but as there were more pasture and waste, it may have been better." [3.] Milk curd, butter and whey were important articles of diet, as was the ghṛta (clarified butter). Hardly any single religious ceremony was performed without them. Many of the inscriptions refer to cāru [4.], an offering to the Gods made from rice and milk. Moreover, the frequent use of ghṛta in religious ceremonies is testified to by contemporary

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1. Ragunanda Bhattacarya - Prāyaścitta tattvam, ed. and translated into Bengali by H. Sāstri, pp. - 124-24.
2. Infra p. 109.
3. A.L. Basham - op. cit. p. 194.
4. Pāhārpur C.P. E.I. XX, p. 61.

literary sources. The flesh and bones of cows were used for manuring, while cow dung was used both as a fuel and as manure. The cow was regarded as a sacred animal. The slaughter of cow was considered as sinful as murdering a Brahman. Legal texts lay down elaborate rules for the proper treatment of cattle.[1.]

Other domestic animals included the buffalo, which like the ox was mainly used as a draught animal. In the rural areas the chief means of conveyance for ordinary people consisted of carts drawn by oxen or buffaloes and we have mention of such a go-ratha in the second grant of Dharmāditya.[2.]

Horses were mostly imported from central Asian mountains.[3.] They were always considered as a kind of luxury used chiefly in warfare. That it was known in ancient Bengal is proved by a reference we have in the Dāyabhāga of Jimūtavāhana.[4.] Commenting ont the injunction of Manu and Visnu that clothes, vehicles etc. were not liable to partition, the authors explains vehicles as "carriages or horse and the like", indicating that these two were the usual vehicles of the well-to-do class In Bengal. Moreover a caparisoned horse is represented among the sculpture of Pāhārpur.[5.] (Plate I, d.) Literary sources also mention horses. They were also used as cavalry during the Pāla and the Sena period as is proved by the copper-plate inscriptions.[6.]

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1. Nārada, vii. 10.13. and app. on theft 33; Brhaspati, XII. 2,3,24.
2. Select Ins. p. 354.
3. Munger C.P., G.L.M. p - 133.
4. Jimūtavāhana. Dāyabhāga,- tr. H.T. Colebrook - p. 148.
5. M.A.S.I. (1955-57) - pl. L III f.
6. E.I. XXIII. p. 290 ff.

Elephants both for fighting and as aristocratic means of conveyance were known in Bengal from a very early period. It was used probably also for some kind of heavy work. The elephant is one of the traditional four-fold divisions of the army mentioned in the Nālandā copper plate of Dharmapāla .[1] It is also frequently mentioned in many other inscriptions and their effective strength is indirectly admitted in the records of many foreign foes, which refer to their formidable array in glowing terms. The officer in charge of this elephant force was possibly known as Pilupati, referred to in the Sena Inscriptions. Besides their military importance elephants were also used by the rich for hunting and riding. Ivory works made from elephants' tusks also fetched a very high price in the market and the section of population engaged in this profitable industry were known as dantakāras.[2] There are also many sculptural representations of elephants in different postures in the terracotta plaques of Pāhārpur and Maināmati.[3] (Plate I . e .)

The camel was also known in ancient Bengal and is mentioned in different sources. The Bengali Caryāpadas refer to camels.[4] A camel represented in the Pāhārpur sculptures has long neck and double hump. (Plate I , f .)

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1. I.B.,84, 86.
2. E.I. III p. 297 ff.
3. MASI (55-57) pl. L II b, c; L III a; F.A. Khan-Mainamati,plate in P.38.
4. c.f. H.B. p. 617, M.A.S.I. (55-57) pl. L III b.
5. M.A.S.I. (55-57) p. 68.

"This shows that the artist was familiar with not only the Indian camel, but also with the Bactrian variety which has a double hump."[1] As camels are unlikely to be found in the humid plains of Bengal, it is likely that like horses, they were also imported into Bengal from the west.

Among various other animals represented either in the Paharpur and Mainamati sculptures or referred to in inscriptions, mention may be made of goats, sheep, deer, monkeys, boar, jackals, lions, tiger, hare, tortoise, mongoose, mice, lizards etc. The rhinoceros is still common in the Brahmaputra valley and is represented in three terracotta plaques from Pāhārpur.[2] Economically the animal was valuable, for we are told by Sulaimān and Māsudi that horns of rhinoceros were exported from Rāhma to China for being made into fashionable and costly girdles. These were prized so highly by the Chinese royalty and grandees that they sometimes fetched two thousand or even four thousand dīnāras each.[3]

Among birds, geese, ducks, peacocks, and parrots are depicted in Pāhārpur terracotta plaques.[4] Besides these, old Bengali literature contain the names of numerous other varieties found in Bengal[5]

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1. M.A.S.I. 55. p - 68.
2. Ibid. plate XL. f-4.
3. Ferrand, I- pp. 44, 105.
4. M.A.S.I. '55. ~~pl. XL B-1, XLI, fig. 1, XXXIX, fig. 3. LIV. 9,~~ pl. LIV. a. c. d. etc. XLII f.
5. T.C. Das Gupta, op. cit., pp. 315 ff.

Fish forms an important article in the diet of a Bengali and even Brahmans were allowed to eat certain varieties.[1] Among the countless varieties of fresh water and sea-fish found in Bengal, the Brhaddharma Purāṇa mentions three: rohita, sakula and śaphara[2]. Jīmūtavāhana's inclusion of the fat of iliśa fish among the different kinds of vegetable and animal fat, tends to show that this fish was known then and the people used its fat for various purposes.[3] In some areas dried fish was very popular and Sarvānanda in his Ṭikā Sarvasya says that the people of Vaṅgāla were very fond of taking dried fish.[4] From the above it is quite reasonable to suppose that fishery constituted an important occupation for quite a large number of people.

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1. Bhaṭṭabhavadeva - Prāyaścitta Prkaraṇa, pp. 67 ff.
2. Brhaddharma Purāṇa., Ed. H. P. Śāstri, II. 5. 44 - 46.
3. Kālaviveka - p. 379.
4. C.f., H. B., p. - 612.

CHAPTER III

LAND SYSTEM

Of the four well-known factors of production, - land, labour, capital and organisation, the importance of the first has always been recognised by economists of all ages. It is considered as the source of all wealth and in Bengal especially both ancient and modern, it has been the bed-rock of the economic system. For in all ages, agriculture has been and is still the main occupation of the people. Although trade and industry both flourished in ancient Bengal and contributed greatly to her prosperity, yet it was land which was the main source of her wealth. It is, however, not an easy task to form a complete picture of the various aspects relating to the land system of the time from available evidence. In fact, the copper plate charters, dating from 400 - 1200 A.D. and describing mostly royal grants of land, might be regarded as the only trustworthy source in this matter. Though the information derived from them is not always adequate, it supplies us with many necessary details of the land system. Some indirect evidence may occasionally be gleaned from similar contemporary inscriptions of other provinces or from Dharmaśāstras, and Arthaśāstra literature. But it is not safe to rely too much upon them, because, firstly the land system of a particular area depends very much upon the physical features and social conditions and these vary from place to place. It is also, conditioned by other factors such as the nature of the soil, the

income derived from it, the rights and obligations accompanying its sale and grant etc. What might be true of Orissa, Madras or Assam, might not apply to Bengal, because even now there is considerable difference in the existing land system in these provinces. Thus the anology drawn from the copper plate inscriptions of these countries may not apply to ancient Bengal. Again, the information derived from earlier legal texts and smṛti literature, should in no way blind us to the fact that, although trying to incorporate the existing state of society and government, most of these point rather to the theory than to the practice of their times. It is indeed very difficult to say how far these principles were put to practice in the different parts of this vast sub-continent. There is a great deal of doubt as to whether the picture depicted in them is a true replica of the actual conditions. In these circumstances, the copper-plate inscriptions of ancient Bengal must be regarded as the primary source of information in dealing with the land system of the time. It is, of course, true these deeds of recording grants of land, by their very nature cannot furnish us with all the necessary data required for a true picture of the land system. Yet, it would be a mistake to fill in these gaps by mere suppositions or imagination. What little facts can be gleaned from them are of invaluable help to us, because there is practically no doubt about their authenticity. Besides, we know for certain the time and date of these inscriptions. They also point out the very important fact that, even in different parts of Bengal itself, there was no uniformity in the prevailing systems of land measurement, price, tenure, etc.

Local conditions, as well as customs and traditions, played a great part in determining the different standards followed in different areas. It is, however, difficult to interpret certain terms in the grants which, no doubt quite intelligible at that time, have come to lose their original meaning to us. In trying to explain these terms, we must often take the help of ancient texts like the Arthaśāstra etc.

Most of the land grants in our period were given by the King or his subjects in order to increase their religious merit. In some, the lands were first purchased and then granted to religious establishment. Thus the copper-plate grants ranging from 400 to 1200 A.D., can be broadly divided into two groups:-

1. Land sale documents.
2. Land grants.

Land Sale

Of the numerous copper-plate charters issued in ancient Bengal, there are some which give us a detailed account of the system of land sale prevalent during the time. Their number is, however, limited to eleven only,[1] and all of them are dated prior to the eight century A.D. These land sale documents are of particular interest from the economic point of view, for besides furnishing us with useful information about the measurement, price, and other details of the land, they also reveal certain

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1. Dhanaidaha C.P. of Kumaragupta - 1 — Select Ins. p. 280.
   Dāmodarpur C.P. 5 — E.I. XV pp 130 ff. 30 f
   Faridpur C.P. 4 — I.A. 1910 pp. 195 ff.
   Pahārpur C.P. 1 — E.I. XX pp 61 ff.

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definite procedures and formalities followed in the sale and purchase of land at this period, though we have always to bear in mind that the system might have varied considerably from one part of Bengal to another. Strangely enough, in all the eleven documents mentioned above, the land was sold by the King or the state and it was purchased for donation. We do not possess a single secular sale-deed during the whole period under review. There is not even one example recording the sale of land by an ordinary layman to another layman for agricultural or similar practical purposes. From this fact certain questions naturally arise - did not a single householder sell land during this entire period of Bengal history? Did he not have the power to dispose of his land as he wished? If we assume that he had this power, in what way was it done? Was there any document registering this transaction? The answers to all these perplexing questions cannot be given definitely in the absence of further evidence, though there must have existed secular transactions in land during this period, for it is difficult to imagine otherwise. These ordinary sale-deeds were perhaps written on cheap and perishable materials such as palm leaves and cloth, because engraving on copper-plates or stone-tables was an expensive method and ordinary men could hardly afford it. The existence of such secular sale deeds is often suggested by references in Sanskrit works.[1] Again, from epigraphic sources belonging to the Gupta and post Gupta period, we come to know of the

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1. P.V. Kane - History of the Dharmasastra - Vol. III, p. 308.

existence of a class of revenue officers called Pustapalas (record keepers), who kept records of land with their boundaries, titles etc. But unfortunately, mainly because of the damp climatic conditions of Bengal not a fragment of these invaluable documents has come down to us. Again, a careful study of the Sena inscriptions, seems to suggest that by the beginning of the twelfth century, there were something like authoritative field to field surveys in Bengal and their accompanying record of holdings and rentals. But unfortunately these are also lost to us. Some of these records, had they survived, could have thrown some light on the procedure followed in private buying and selling of land. Another reason for the absence of these secular sale-deeds might be found in the fact that as most of the religious endowments were given tax free, as well as in perpetuity, it was felt obligatory on the part of the government which sold the land, as also on the purchaser, to record the transaction on a more permanent charter in stone or copper-plates. Moreover, these lands though purchased from the state, carried with them various immunities which required to be permanently recorded in order to avoid future complications. But privately owned land was not normally tax-free and was liable to change hands with comparitively greater frequency. Thus there was no necessity to make a costly charter at the time of buying or selling it. For example in the Calcutta Sāhitya Parisad copper plate of Viśvarūpasena, we see that the Brahmana Halāyudha purchased different plots of land in different parts of Bengal and these same lands were later conferred on him as gifts from the Queen

mother, two princes and one minister. But it was only when he wanted to enjoy them tax-free, that a charter was issued to him, with the royal ratification.[1] Moreover in majority of the pre-Pāla grants lands were dedicated to corporate bodies like the Buddhist and Jaina Vihāras and to temples, the personnel of which were sure to change from time to time. So a permanent charter was more necessary in these cases. Lastly, it is but natural that in making a permanant charter, there must have prevailed a keen desire for publicity on the part of the donor, who would thus have an enduring record to perpetuate his piety and memory to further generations[2] which would not be inclined to appropriate the grant, especially after reading the quotations from the sacred texts, citing the good and evil arising out of giving and confiscating land respectively.

The eleven land-sale documents referred to above differ from an ordinary royal-grant both in their composition, and in their contents. They are usually drafted in a manner totally different from the ordinary royal grants of the Pāla and the Sena period. The former are land sale-documents and land grants combined in one, while the latter are only grants.

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1. I.B. - p. 132.
2. S.K. Maity - Economic life in Northern India during the Gupta period - page - 52.

Brhaspati defines a land sale charter as one which records the purchase by one or more persons of a homestead or of cultivable or any other type of land, along with the price paid for the same.[1] If we examine these copper plates minutely, each of them reveals certain definite procedures and generally contains six different stages through which negotiations had to move, before the deed was made final, though the different parts are not always found exactly in the same order. Since in different cases one may precede or follow the other. Again all the six parts may not be mentioned in detail, but just vaguely referred to. Sometimes, one or two steps may be omitted altogether.

At the outset, the intending purchaser gave intimation to the local government of his desire to purchase a certain plot of land. Usually this portion also gives the name of the reigning King. But some copper-plates, for example the Pāhārpur copper plate [2] do not mention this. The applicant might be one man, but there are also examples where two or more persons jointly make known their desire to purchase land. Thus while in the Dāmodarpur copper plate No. 1, [3] the applicant is a Brahmana of the name of Karpaṭika, in the Baigrām [4] and Pāhārpur [6] plates, two brothers, Bhoyīla and Bhāskara, in the former and a husband and wife Nāthaśarmā and Rāmī, in the latter - made joint applications to the

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1. Brhaspati VIII. 7. S.B.E. Vol. - 33, p. 305
2. E.I. Vol. XX, p. 61 ff.
3. E.I. Vol. XV p. 114.
4. E.I. Vol. XXI, p. 78.
5. E.I. Vol. XX p. 59.

district council for the purchase of land. Again, the intending purchaser might be ordinary person, a member of the district council (adhikaraṇa) or a high dignitary of the state. Thus the applicant Ṛbhupāla of Dāmodarpur copper plate No. 4. was the guild-president of the town and in this capacity a member of the district council, too.[1] In the Dhanaidaha copper plate[2] the purchaser is said to be an Āyuktaka or state official. Similarly, Vaṭabhoga of Faridpur plate No. 1 was a Sādhanika, probably a military officer.[3] Thus it is clear that everyone, whether he was an ordinary layman or an officer under the crown, had to make a formal application to the state before the purchase of any land.

After this, the aim and objects of the applicant in purchasing the land and his willingness to pay the proper price for it according to the prevailing rate in that particular district or province are stated fully in the next portion. In almost all the cases, the ultimate motive in buying the land was to donate it for some charitable purposes.

In the third stage, the Council first consulted the board of record-keepers (Pustapālas) with regard to the details of the land in question. If there was no objection to the transaction, they declared that as besides bringing some revenue to the treasury, it would also entitle his majesty to a sixth share of the religious merit accruing from the endowment, the

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1. E.I. XV p. 115,
2. Select Ins. p. 280
3. E.I. XVII p. 346,

applicant's request to buy the land was granted.[1] It is clear from the sale-deeds, that the office of the Pustapāla therefore, used to make necessary enquiries as to the legal rights and titles of the land, whether any one else had previous right over it, whether the price as well as the other terms and conditions accompanying the transfer had been duly fixed and so on. Sometimes there was one and sometimes more than one record keeper as in the case of Dāmodarpur copper plates No. 2 and 4.[2] But the transaction was not always carried out smoothly. Sometimes disagreement may have occurred between the record-keepers and the district authorities. In Dāmodarpur copper plate No. 5, there is a hint to such a possibility in the mention of a slight disagreement between the Visayapati and the chief of the three record-keepers, to Naranandin Gopadatta and Bhattanandin.[3] In the event of such a dispute, it was referred to a higher authority, possibly the King himself, who had the final say in the matter. But if there was no objection, the record keepers' office gave its consent for the sale of the land applied for.

After having received the consent from the Pustapālas' department, the applicant paid in cash the total price of the land to the district office. The plot of land was then inspected by the local council, and demarcated according to the standard measure in the presence of the headman of the villages (Mahattaras) Brahmanas, householders (Kutumbins) other

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1. Faridpur copper plate of Dharmāditya, No. 1. A.M.S.J. vol. III, part II, page 483.
2. E.I. XV p. 114 and 115.
3. E.I. XV page -114, line 12 - "Visayapatinā Kaścidvirodhah"

royal officers and so on. These men were like witnesses of modern legal transactions. The four boundaries of the plot were often mentioned very clearly in this portion, certainly with a view to averting any future dispute or litagation that might arise. After all these formalities, the local council finally declared the sale to be completed. It is not unlikely that the deeds were first drawn up in the government office and then engraved on copper and afterwards issued to the persons concerned.*

The next part enumerates the details of the donation. Here the purchaser or purchasers explained for what purpose the land was donated to such and such person or institution and also on what terms and conditions. In almost all cases it was granted with complete exemption from all taxes and according to the principle of nīvi dharma [1] or apradā-dharma [2]. It is in this sense that these sale deeds might be considered as land-grants also. But we have one exception in the Mallasārul copper plate of Gopacandra [3] wherein we are told that the applicant, after going through all the formalities and having paid the price in full, receives the land, but subject to the condition that the usual dues in respect of the land would be borne by him and credited to the revenues of the vīthi .

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1. Dēmeddarpur C.P. No. 1. E.I. XV p. 114, Pāhārpur c.p. E.I. XX p. 59.
2. Ibid, pl. no. V E.I. XV p. 115.
3. E.I. Vol. XXIII p.155.

* We have one example of a copper plate that was meant to be a charter issued by the King Śrīcandra but was ultimately left unfinished. Mr. Bhattasali thinks that it was no grant at all, but only a plate kept ready, with the stereo-typed portion of the grant inscribed in the office of issue to be filled in with the necessary remaining portions as occasion arose". E.I. XVII p. 188.

In the sixth and last part, the respective merits and demerits arising out of preserving or usurping this kind of pious grant are inscribed, and they are usually supported by certain well known verses from the sacred texts. In some of the charters, the date when the deed was executed is given. This portion usually contained the seal of the local administrative unit. After all these formalities, the deed was made final and the purchaser got the legal title to his newly acquired land.

The procedure generally followed in ancient Bengal in respect of the purchase and donation of land and which have been discussed above, might best be illustrated by summarising one of the eleven land-sale documents referred to above. Thus the No. 1. Faridpur C.P. of Dharmāditya reads: - In the reign of Mahārājādhirāja Dharmāditya, when Mahārāja Sthānudatta was the governor of the province of Navyāvakāśika and, under his appointment, the Viṣayapati Jājava was administering the state business in the district of Vārakamaṇḍala, a person named Vāṭabhoga approached the local district administration and the people (prakṛtayaḥ) headed by the leading men of the district (Viṣayamahattara), and applied for the purchase from them of a plot of cultivable land (Kṣetra Khaṇḍam) by offering the due price. On submission of this application, the record keeper first determined the matter and made a report that in that district the custom prevailed of selling cultivated land by means of copper plate documents (tāmrapaṭṭadharmena) at the rate of four dīnāras for each Kulyavāpa (Catur-dīnānarikya-kulyavāpena) and that the King was

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1. A.M.S.J. III Part 2. page 483.

to receive only the sixth part of the price or of the merit (punya) accruing from the donation according to law in such transactions (parama-Bhattāraka - padānam atra dharma sadbhāga Lābham). The applicant's prayer was granted and on deposit of 12 dīnāras by Vāṭabhoga, cultivated land measuring 3 Kulyavāpas was sold to him, after measuring it according to the standard measure of eight and nine reeds, by the hand of Śivacandra. He in his turn made a donation of the same to Brahmana Chandrasvāmin for the increased merit of his parents. The four boundaries of the plot sold were very clearly mentioned in the document, which had a seal attached to it bearing the emblem of Śrī or Lakṣmi with the legend - Vārakamaṇḍalavisayadhikaranasya, i. e. the seal of the court of the district of Vārakamaṇḍala . This seal was apparantly very important, for it authenticated the legal purchase made by the purchaser. Last of all comes the verse regarding the evils arising out of confiscating such a grant. "He who takes away land given by him or by another, becomes a worm in ordure and rots with his fathers."

Land Grants

Copper-plate charters recording only grants of land are more commonly found in Bengal than the land-sale documents discussed in the preceding section. It seems that assignments of land for various purposes, mainly pious, have been regarded as one of the surest means to attain religious merit for a man and his parents. From early times it was

a very common practice among the high as well as the low to donate plots of land to Brahmanas, temples or religious institutions.[1] Most often these grants were perpetual and carried with them exemptions from all royal dues. It was possibly because of this reason, as well as others mentioned in the preceding section, that the custom of registering them on copper-plates prevailed. This is supported by our epigraphic sources, in which it is specifically mentioned that the usual method in which such pious grants were registered and executed was by Tāmra-patta (copper plates). The Yājñavalkya Saṁhitā in its chapter on the duties of Kings tells us how these land-grants should be engraved on copper plates.[2] These were a kind of permanant documents and served as security against future misappropriation. They furnish us with many important details of these grants. Some give the total value of the donated land,[3] while others mention the yearly income (Utpatti) to the state from it.[4] But there are also a large number of grants, for example those of the Pālas, where neither of these are specified. It should be noted, however, that in most of the Pāla grants whole villages were given out as donations. The rights and immunities which

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1. Arthaś.Tr , II 1,7. "He should grant (lands) to priests, preceptors, chaplains and Brahmins learned in the Vedas (as) gifts to Brahmins, exempt from fines and taxes, with inheritance passing on to corresponding heirs, ... without the right of sale or mortgage".
2. Yājñavalkya - Vol II , part II , verses 319-320 p. 580 .
3. E.I. XV. pp- 114- 115.; A. M.SS. III. part II pp. 483-485
4. I. B. p. 87, line 38; p 179, lines 58-59

the donee was to enjoy with the land are usually enumerated in detail in most of these grants. We get only five examples of such pure land grants from Bengal prior to the eighth century A.D.[1] But from then onwards all the known copper plates of the Pālas, the Senas and their contemporaries are records of land-grants, of which the later ones are more elaborate and usually contain more details. Lands were assigned in most cases by the King himself, and grants of this type are too numerous to mention. But there are a few examples, where other members of the royal family such as the queen, queen-mother, and the princes, as well as others of high rank like ministers, Sāmantas (vassals) Mahāsāmantas etc. followed his noble example, and this no doubt with his approval. We have also one record of the donation of land by a Brahmana to another Brahmana. Vāsudevasvāmin, a Brahmana of Vārakamaṇḍala donated a piece of land to the virtuous Brahmana Somasvāmin for his own religious merit and for that of his parents.[2] Probably Vāsudevasvāmin was a secular Brahmana, having no knowledge of Vedic learning. In most of these grants land was directly given by the King to a Brahmana or a religious institution. But in some he donated the land on the request of someone else. Thus the Guṇāighar copper plate records the gift of land by Mahārāja Vainyagupta at the instance of his vassal Mahārāja Rudradatta in favour of a Buddhist

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1. Guṇāighar C.P. of Vainya-Gupta - 1
   Vappaghoṣvāṭa C.P. of Jayanāga - 1
   Tippera C.P. of Lokanātha - 1
   Ashrāfpur C.P. of Devakhaḍga - 2
   5.

2. C.P. No. II of Dharmāditya. I.A. 1901. pp. 200-201.

Congregation of monks, which was established by Ācārya Śāntideva in a Vihāra dedicated to Avolokiteśvara. This vihāra was then in the course of construction by Rudradatta on behalf of the Ācārya.[1]

Again the Tippera copper plate of Lokanātha records the grant of land to Mahāsāmanta Pradoṣaśarman who made an application to his chief through the prince Lakṣmīnātha, in the forest region (atavi bhukhanda) in the visaya of Suvaṅga, where he desired to erect a temple for the God Ananta Nārāyaṇa.[2] With these two copper plates may be compared the Khālimpur copper plate of Dharmapāla.[3] In it we find that for the increased merit of himself and his parents Mahā Sāmantādhipati Śrī Nārāyaṇa Varma had established a temple for the God Nārāyaṇa. In order to maintain it, and to meet the daily expenses of the Gujarati Brahmanas, who were in charge of looking after the temple, he made a request to the King through the crown prince Tribhuvana Pāla. for the grant of four revenue-free villages, and the King complied with his request. But usually the land-grants of the period under survey do not contain such requests and in most of them it seems that the King is donating land of his own accord. It might also be possible that in some at least the request was made, but it is not mentioned in the inscription. The two plates from Ashrafpur[4] Jayanāgaghosa's Vappaghosavāṭa[5] and

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1. I.H.Q. Volume VI p. 45.
2. E.I. Vol. XV p. 301.
3. G.L.M. page 16.
4. M.A.S.B. Vol. 1. No. 6, page 85.
5. E. I. XVII. p. 60.

most of the Pāla and Sena grants belong to this category. In No. 1. Ashrāfpur copper plate King Devakaḍga himself donated land for the upkeep of the Vihāra of Ācārya Samghamitra, without waiting for any formal request from any one.[1] Among the copper-plate grants of the Pālas, the Senas and their contemporaties, there are only few, whereby lands are donated to religious bodies like Vihāras or Saṁghas. The rest might be classified as personal grants made in favour of individual Brahmanas on pious occasions [2] or for some specific purpose such as the performance of religious rites and ceremonies, [3] or to defray the costs of worshipping certain Gods and Godesses, or just to increase religious merit of the donor and his parents. [4] These were more or less of the nature of Dakṣiṇā (fees to Brahmanas) and therefore here the question of request could not possibly arise. The Manahali copper plate of Madanapāla [5] records a grant of land by the king, to a Brahmana as Dakṣiṇa for his recitation of the Mahābhārata before the Paṭṭamahādevī (Chief queen) Citramotikādevi.

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1. M.A.S.B. Vol I. No. 6 page 85.
2. In the Calcutta Sāhitya Parisad C.P. of Viśvarūpasena we get the information that some pious occasions such as Uttarāyaṇa Saṁkrānti (last day of Summer solstice), Candragrahaṇa (luner eclipse) and Utthāna Dvādaśī (the twelfth day of light or the first half of the month of Kārttika when Viṣṇu is said to rise from his sleep) were the cause of the gift of three different plots of land by the queen and two princes to the Brahmana Halāyudha (IB. pp. 140 ff)
3. Barrackpur C.P. of Vijayasena IB p. 57.
4. Belāva C.P. of Bhojavarmana IB. p. 12, Anuliā C.P. of Lakṣmaṇasena I.B. p. 81.
5. G.L.M. p. 158 , line - 44 .

When royal help in the shape of a land grant was needed for the maintenance of a particular religious institution, in order that it might be enjoyed free from taxes and other dues, the founder or the patron approached the King through some influential member of the court for such favours. But when the King himself was the patron or the recipient was an individual Brahmana the King usually made the donation himself, without waiting for any formal request from others.

There were also great variations in the nature of the assignments made. Some record the grant of one village, while there are others, whereby a number of villages are given away by a single copper-plate. Again some of the available grants show that the plots of land donated were not contiguous, but scattered in a village or even in different villages. The Belwā copper plate of Mahīpāla [1] furnishes us such an example of the distribution of several plots comprised in the same grant, situated in different areas. Although all of them belonged to Puṇḍravardhanabhukti, they were scattered in Amalakṣuḍuṅga in Phanita Ṭīthi, belonging to the Puṇḍarikā mandala and in the Pancanagarī visaya. Again the Dhulla copper plate [2] of Śrīcandra of the Candra dynasty of Bengal record the grant of four different plots of land in Puṇḍravardhana-bhukti combined in one charter. But perhaps the best example is provided by the Calcutta Sāhitya parisad plate of Viśarūpasena.[3]

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1. E.I. vol. XXIX pp. 1 ff.
2. I.B. - p. 164.
3. I.B. pp 140 ff.

It furnishes details about eleven plots, altogether measuring 336½ unmānas and yielding the total income of 500 pūrāṇas, and locates them in different villages as noted below:-

1 - 2 - two plots in Rāmasiddhi Pāṭaka in the Nāvya region of Vaṅga in Puṇḍravardhana bhukti, measuring 67¾ udānas (unmānas)

3. One plot measuring 25 udānas in the village of Vinayatilaka in the same Nāvya region.

4. 165 udanas in Ajikulāpāṭaka which lay in Nava-Saṁgraha Caturaka included in Madhukṣīraka Āvṛtti

5. 25 udānas in Deūlhastī in Lāuhaṇḍā-Caturaka in Vikrampura.

6 - 7 two plots in the same village of Deūlhastī measuring 10 udānas.

8 - 9 two plots in the same village measuring 7 udānas.

10 12¾ udānas in Ghāghrakāṭṭī - pāṭaka in Urā Caturaka which lay in 'Ndradvīpa.

11 - 24 udānas in Pāṭiṭādivīka which lay in 'Ndra dvipa

Most of these plots were purchased by Halāyudha himself. Of these some were later given to him as gifts by the queen mother and two princes on some special occasion.

From this last inscription, we also get the interesting information that plots of land purchased earlier could be converted into gifts later on.

I. I.B. pp. 140 ff.

Possibly, though purchased earlier, Halāyudha received the price for some of these plots from members of the royal family. But when he wanted to enjoy this vast property free from all taxes, he had to approach the King to issue a copper-plate registering a combined gift of all the eleven plots of land. It is evident from the above that a royal assignment carried greater security than those obtained either by purchase or gift. But unfortunately, details of the procedure by which personal properties were converted into royal grants are not known to us.

Confiscation of land already donated was universally condemned. Each of the copper-plate grants elaborately deals with the suffering arising out of such a crime, and it is certain that the Kings usually tried to maintain the grants made by their predecessors, though it involved considerable loss of revenue to the exchequer. But there are examples, where these rules, and regulations were not followed. The Rājatarangiṇī [1] for example states that the King Sankaravarman (883-902 A.D.) the son of Avantivarman, deprived temples of all their properties in order to replenish his depleted treasury. It seems that the King had the inherent right of resuming any land which might have been previously donated. A donee claimed an inalienable right [2] and the gift made in his favour might be legally described as perpetual and heritable.

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1. a. Rājat. V. 168 - 70 p. 208.
2. Arthaś. tr. II. 1. 7. p. 63.

Default of certain conditions may have in certain cases warranted a resumption. We have one reference to such a resumption in the Belwā copper plate of Mahīpāla I, in which 210 standard measures of land were granted out of the royal domain in Osinna Kaivarttāvṛtti, which had been once alotted to the Kaivarttas as maintenance for their services.[1] Sometimes Kings or powerful vassals could grant land already in the possession of another as found in the Kamauli copper plate inscription of Vaidyadeva[2]. It is said there that the two villages granted by the charter were in the possession of one Gangādhara Bhaṭṭa. It is, however, not mentioned why or when these had been taken away from him. In the case of pious grants of land, the rulers interfered as little as possible with previous assignments. We have, however, at least one example from our period, of a fresh assignment of land, replacing a previous one in the Śaktipur copper plate of Lakṣmaṇasena.[3] It records the gift of a portion of a village, comprising a part of Nimapāṭaka and the whole of five other pāṭakas all situated in Dakṣinavīthi of Uttara Rādhā in the Kaṅkagrāmabhukti. The income from this whole area is said to be 500 Kapardaka Purāṇas. The inscription also reveals that the above grant was made in exchange for a Kṣetra-pāṭaka, the income from which was the same and which had been granted by Ballālasena to a Brahmana. It appears that Lakṣmaṇasena by mistake gave away a Kṣetra pāṭaka which was

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1. E.I. Vol. XXIX, pp. 1 ff.
2. G.L.M. p. 127 ff. line 49.
3. E.I. Vol. XXI p. 211.

already a gift made by his predecessor Ballalasena. When the real fact was brought to his notice, he made a new gift.

There were certain general procedures in granting lands, and apparently certain ceremonies had to be observed before a grant was made final. The declaration of the gift was made known to the headman of the village the local Brahmanas, reputable householders, royal officers and in some cases even to the ordinary cultivators of the region. This declaration was undoubtedly an important part in the grant, for these formalities before responsible village elders, citizens and officials were obviously intended to ensure that no injustice was done during the transaction. The local people would naturally know more about the land in question and so they were informed before any formal transfer took place. It was in their presence also that the four boundaries were demarcated and the piece of land donated was severed from the rest and handed over to the donee. It was also considered necessary that the consent of the officials and non-official village elders should be unanimous. In a sense it was a survival of communal ownership. But presumably the consent was a formality.

After the application of the donor had been examined thoroughly, it was next referred to the local record-keepers for further investigation. If no objections were found, the deed was registered and a royal seal attached to it. Perhaps it was then that a

copper-plate engraving the details of the grant was issued to the donee. Many of these charters begin and end with the letter ni (probably an abbreviated form of the word nibaddha, meaning registered).[1] This kind of double endorsement by the King himself and by one of his officials is known from records of both the Pālas, and Senas.[2] Lastly like many other Hindu rituals, the donation ceremony was finally completed with a libation of water.[3] Even the Pāla Kings, who were Buddhists, respected this brāhmanical custom and most of their grants, we are told, were made after they had taken a bath in the sacred waters of the Ganges or the Bhāgīrathī. Another important feature of these land grants was the dūtaka. Usually an influential member of the court or royal council such as the Yuvarāja (prince) or Sandhivigrahika (Minister for War and Peace) acted in this capacity. Though we do not know what his real function was, it is possible that he acted as the intermediary agent between the donor and the donee or served as a guarantee of the charter. Perhaps he had to ensure that the transaction was effected properly. And the presence of a dignitary of government on public occasion makes it seem important. The term dūtaka, though literally means a messenger was also used in the sense of an ambassador and so his function was to act as the King's representative at the function.

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1. C.f. E.I. XXIX. p. 1.
2. E.I. XXIX. p.1; I.B. pp 64; 75 etc.
3. I.B. pp.1, 81.

The fiscal and other exemptions and immunities are specially mentioned in all these grants. In most of them these are repeated in a conventional manner. If we examine them closely, we will find that the donors right generally extended not only over the land, but also over the water and everything else that stood on it. They sometimes explicitly classify the different kinds of land included in the grant. Thus in the Bhāgalpur copper plate of Nārāyaṇapāla [1] mention is made of lowland (tala), highland (uttedesa) ditches and barren soil (gartoṣara). In the Barrackpur grant of Vijayasena [2] we find a similar list. Some inscriptions, particularly those of the Senas, Candras and Varmans mention that the donee also had rights over trees and plants such as mango, jackfruit, mahuā, coconut, areca and betel leaf plantations. [3] Besides, he was to enjoy the dues to which the King was entitled and these included the various taxes and fines originally collected by the royal exchequer. The copper plate inscriptions of the Pālas, the Senas and their contemporary Kings and vassals repeat these items in the same way and in most of them the terms and conditions are more or less uniform, though perhaps more explicit in those of the Senas. Thus in the Khālimpur copper plate, [4] we have with (the fines for) the ten offences, not in any way to be interfered with, exempt from all molestation,

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1. G.L.M. pp 55 ff.
2. I.B. p. 57.
3. I.B. page 5, 21, 63 etc.
4. E.I. Vol. IV. pp. 243 ff.

molestation, in accordance with the maxim of Bhūmicchidra, for as long as the moon, the sun and the earth endure" (sadaśāpacārah akincitpragrāhyah-parihrtasarvapīdāh-bhūmicchidra-nyayena-candrārka-ksiti-samakālam). In the Barrackpur copper plate [1.] the land was granted" with toleration of the ten sins, with exemption from forced labour, not to be entered by Cattas and Bhattas, free from all sorts of dues and along with taxes and tributes of gold enjoyed by the King for as long as the sun, moon and earth endure, according to the principle of Bhumicchidra by means of a copper plate." (Sahyadaśāparādha-parihrita-sarvapīdā-acattabhattapravesa-akincitpragrāhya samasta-rājabhogakarahiranya-pratyayasahita-acandrarkaksitikālam-yāvat-bhūmicchidranyayena-tāmraśāsanikrtya pradāttasmābhi).

Thus we find that as years passed the terms and conditions accompanying a grant became more and more precise. Of these, daśāparādha and cauroddharana were of the nature of fines, while bhoga, kara, and hiranya were forms of land revenue and all these will be discussed in detail in the chapter on revenue. The term parihrtasarvapīdā has been interpreted in different ways by different scholars. Kielhorn [2.] and A.K. Maitreya [3.] take it to mean "free from all molestation or oppression." N.G. Majumdar [4.] however, interprets it as "exempt from all kinds of forced labour", in his

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1. I.B. page 57.
2. E.I. Vol. IV page 254.
3. G.L.M. - page - 27.
4. I.B. pp24; 66.

translation of the Belava and Barrackpur copper plates. Although it is quite possible that forced labour was one of the forms of royal oppression in those days, it is difficult to accept the latter's view as correct, mainly because the reference is not only to one oppression, but all kinds of oppression. Though the Bengal inscriptions do not enlighten us on what these different kinds of oppressions might have been, we have at least some idea from two inscriptions from contemporary Assam - the Gauhāti C. P. grant of Indrapāla [1] and the Bargāon grant of Ratnāpala. We come to know that lands were given free from all worries"on account of the fastening of elephants, the fastening of boats, the searching for thieves, the inflicting of punishments" etc. Possibly these referred to the various inconveniences which the poor villagers had to put up with from time to time, whenever royal officers or troops moved from one part of the country to another. At least we have some reference to these kinds of oppressions from the mention of Caṭṭas and Bhaṭṭas who were forbidden to enter the donated land.

Most of these pious land-grants were made according to the principle of bhumicchidra (non-destruction of the principle) [3]. and were to last as long as the moon, earth and stars endure. In other words, the donee and his successors were endowed

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1. J.A.S.B. 1908 - p. 113.
2. Ibid. 1907 - p. 99.
3. Infra. - pp. 146 - 149.

with the right to enjoy them perpetually without being burdened with any form of taxes or fines, but they did not have the right to alienate, sell or mortgage them to anyone else.[1.]

Service Grants

Though Manu,[2] Brhaspati[3] and many other earlier sources state that high officers in the state were granted land in return for their services, there are very few records of such grants before the ninth century A.D. Possibly in early times, these were written on perishable materials. These service grants of land are found mostly in Orissa and in the small kingdoms which established themselves on the ruins of the Gurjara Pratihāra empire. But there are very few such grants even in the last days of the Pāla rule in Bengal. The Khālimpur copper plate inscription of Dharmapāla[4.] mentions a revenue official, called Daśagrāmika, who, according to Manu[5.] was paid one Kula of land. But we do not come across this official in later Pāla records. The Pāla records are almost silent about how more than two dozen officers working under the crown were paid. We have, however, one reference to a service grant in the Belwā copper plate of Mahīpāla I[6.]

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1. Arthaś tr. II. 1. 7. p. 63
2. S.B.E. vol. 25 ~~vii~~ p 119 ~~viii 119~~. page 235.
3. Brhaspati viii. 24. S.B.E. Vol. 33 - pp 306-7.
4. G.L.M. - p. 16 line 47.
5. S.B.E. vol. 25 . vii — 119. page 235.
6. E.I. vol. xxix pp. 1 ff and supra - p 92.

The resumption of the land from the Kaivarttas was possibly one of the potent causes behind Kaivartta unrest and revolt. Another indirect evidence of the grant of land to a high dignitary of the state is found under Vigrahapāla III (1055-70). In his Bangāon copper plate we have a peculiar endorsement in two lines at the end. According to it, the real donor of the land was not, as recorded in the grant, the King, but one of his Brahmana officers named Ghantusa and described as a servant (Vidheya) of the King. He is said to have made the grant out of his own hala - "probably meaning the jagir under his possession," [1] with the permission of the king, which might have been granted to him by the Pāla king as a service tenure.

The only other epigraphic evidence is the copper plate inscription of Vaidyadeva [2] from Kāmarupa, whose family had provided heriditary ministers to three Pāla kings - Vigrahapāla, Ramapāla and Kumārapāla. Vaidyadeva who served Kumārapāla had become practically independent towards the end of the Pāla empire, and granted two villages in Prāgjyotiṣa bhukti, without the formal endorsement of his suzerin. These two villages were enjoyed by Gaṅgādharabhaṭṭa who had received them earlier either from the Pāla king or from his minister.

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1. E.I. Vol. 29. p - 51.
2. E.I. Vol. II p - 353, line 49.

It is quite possible that the ministerial family had increased its landed property from successive grants from the Pāla kings and had ultimately slipped out of their control. Another similar example may be found in the Bhuvaneśvar inscription of Bhaṭṭabhavadeva; whose grand father had served as a minister under a king of Vaṅga and who had himself been a minister of peace and war to Harivarmadeva of the Varman dynasty. In the inscriptions he claims to have increased his land and learning by military and intellectual feats respectively. We learn also, that one of his ancestors also named Bhaṭṭabhavadeva received the village of Hastināḥbhita as a grant from the king of Gauḍa.[1.]

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1. I.B. p - 25.

Types of land

Copper plate inscriptions prior to the 8th century A.D. mention mainly three types of land in ancient Bengal - Vāstu, Kṣetra and Khila. Although there are references to several other types of land in Amarakośa[1]. perhaps these three were the most important from the economic point of view and the state fixed different rates of prices for each one of them. The other varieties of land such as hajjika usara, tala, uddesa gochara, trnayuti etc. are referred to mostly in later inscriptions and in connection with the four boundaries of the villages or plots of land donated.

Vāstu - This term generally signified habitable land used for the purpose of building ground. From the copper plate inscriptions we come to know that this type of land was purchased or donated mainly with the intention of providing dwelling houses for either Brahmanas or preceptors of the Jaina and Buddhist faith. This land formed undoubtedly the driest part of a village and was usually higher than the cultivable lands. In some inscriptions, for example in the Baigrām copper plate, [2]. this term is further developed into Sthalavāstubhūmi, while the shortened form vyabhū is sometimes met with in inscriptions of the twelfth and thirteenth centuries.[3].

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1. Amara I. 5-6, 10-13, p - 70-72.
2. E.I. XXI p. 78.
3. Calcutta Sāhitya Parisad C.P. of Viśvarūpasena I.B. p. 140.
   Chittagong C.P. of Dāmodara,
   Ibid. p. 158.

It may be noted, however, that vāstu or 'habitat' is not mentioned in many grants. The omission may be explained by the fact that the assignment did not include 'vāstu' land and this is possible where the object of the grant is cultivable or waste lands only. But it cannot be explained when a whole village is transferred. It is difficult to imagine a village without dwelling houses. The term 'vāstu', however is still used in Bengal to denote sites for dwelling houses.

Kṣetra - This is another term frequently mentioned in the copper plate grants of the period.[1.] Monier Williams translates it simply as 'field'. But scholars like Basak[2.] and Pargiter[3.] interpret the term as a field capable of being cultivated. The term Kṣetrakarān found in many inscriptions and translated as cultivators seem to support the above interpretation. In the Amarakośa also, it is defined as a special type of land capable of producing all kinds of crops.[4.] The word 'Nālbhū' or 'Nābhū' found in the Chittagong copper plate of Dāmodara[5.] conveyed almost the same meaning as Kṣetra, for it is still used in some urban areas of Bengal in the form of 'nāljami'.

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1. A.M.S.J. Vol. III, pt. 2 page 483. I.B. p. 87.
2. E.I. XVII, p. 348.
3. I.A. 1910 page 205
4. Amara 1.5.70.
5. I.B. page 158.

The term vāpakṣetra found in the grant of Dharmāditya,[1] in our opinion should be taken in its original form and translated as a field where seeds are sown and not as suggested by S.K. Maity [2] as vāpīkṣetra (a dry plot of land in need of irrigation). We know that there existed two different ways of sowing paddy in Bengal from very early times [3] by broakcasting and transplanting, and the word vāpa-kṣetra can easily therefore be taken as a proof of the latter.

Khila - It was a very common practice in ancient Bengal to purchase a large area of khila lands from the state and donate them for charitable purposes. From one inscription, we come to know that this type of land was exempt from all taxes and perhaps that was the reason why it was in such demand. Basak [4] and Sircar [5] accept the meaning suggested by Amara [6] and ~~Hulayudha~~ [7] and explain it as waste or fallow land. In some inscriptions the nature of the khila land is further emphasised by the addition of the word Aprahata (Dāmodarpur C.P. No. 3). According to Basak [7] the latter is but another synonym for the word Khila. But as both terms are recorded side by side in the same plate, it is possible that there might have existed some minute technical difference between the two. We get a clearer definition in Nārada Smṛti [8]

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1. A.M.S.J. Vol. III part 2 p. 483.
2. S.K. Maity - op. cit. p. 33
3. Raghu - IV. 37.
4. E.I. XV p 31
5. Select Ins. ____ p. 339, fn. 5
6. Amara II. 10.5.
7.
7. E.I. XV, p. 31.
8. Nārada, XI, 26; ~~XI~~. 26. S.B.E. 33. p. 160

which states that a plot of land which has not been under cultivation for a year is called ardha Khila (half waste), but that which has not been cultivated for three years is called Khila or waste land, while that which has not been under cultivation for five years at a stretch, is no better than a forest. From the above we may reasonably conclude that Khila land signified waste, which had been cultivated previously, but was now out of cultivation for some reason or other, while aprahata land may be translated as unsettled land, - land which had not been touched by plough at all. In Pāla and Sena inscriptions we find neither of these terms and from this we can presume that by that time most of the available lands in the country had been brought into use in some form or other. Another reason why they are not mentioned in later inscriptions is because in most of them whole villages formed the subject of donation.

The difference between the two main types of arable lands of ancient Bengal - Kṣetra and Khila, continued to be an important factor in the land system of subsequent centuries also; this can be testified by the Ain-i-Akbari [1] which divides land capable of revenue assessment into the following four categories:-

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1. Abul Fazal, ~~I'tisam Allami~~ Ain-i-Akbari, Vol. II Tr. into English H. S. Jarrett. Second ed. corrected and anotated by Sir J.N. Sakar. Calcutta 1949 p - 68.

1. Polaj - land which is under cultivation and this corresponds to the Kṣetra of ancient Bengal.
2. Parauti - land capable of being cultivated but which has been kept fallow for one to two years.
3. Chachar - land kept fallow for three to four years.
4. Banjar - land kept fallow for five or more years.

The last three types of land mentioned in the Ain-i-Akbari might be grouped together and identified with the Khila land mentioned in the inscriptions of ancient Bengal. All these were, however, arable lands, while the opposite type is denoted by the term usara (sterile, barren) mentioned by Amara [1]. and found in many inscriptions from the eighth century onwards. It is possible that some portions of a village were unsuitable for cultivation because of the dry, sandy or rocky nature of the soil and ūṣara included all these lands. But it may also be possible that the term ūṣara was a part of the conventional terminology and did not necessarily convey the idea that every village had barren land.

Garta , is a term which is used together with ūṣara in most of the inscriptions (Sa-gartto-ṣara). Though Monier Williams translates it as hollow, or a hole, or a cave, probably it signified shallow ponds and ditches, which the donor often took

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1. Amara . 1.5.6. page 70.

special care to mention. That these 'gartas' were not connected with the water supply of the village is clear from the fact that "jala" is separately mentioned in most of the inscriptions. In the Irdā copper plate of Nayapāladeva [1] the word garta is preceded by the term jaladhāra (water courses or streams). Thus we see that a clear distinction has been made between garta and jaladhāra - the former was possibly used to hold waste water and the latter for the supply of drinking water or water to be used for cultivation. Some scholars [2] have translated tala - another term found in the inscriptions as low land of the village as distinguished from Vāstu, Kṣetra, Gocara etc. But when compounded in Vāṭaka (road) or uddeśa, it may also have denoted drains for the removal of waste waters. Uddes'a (ut + deś/a), though it literally means high land, may have also included ridges, embankments etc. which rose above the lower level. The word āli meaning a ridge, is sometimes mentioned separately. [3] In the Belāva copper plate we have reference to a high rampart, which surrounded a field. [4]

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1. E.I. XXII. p. 150.
2. N. G. Majumdar (IB. pp. 8, 24) translates it as 'bottom' apparently meaning low lands.
3. Kalimpur C.P. E.I. Vol. IV p. 243.
4. J.A.S.B. XVII pp. 117 ff.

Some scholars think that the term apradā mentioned in Pre-Pāla land grants denotes another type of land. Dr. Salatore [1] thus explains it as untilled land and so it must have been only another synonym for aprahata. But this suggestion does not hold good. For if we read carefully the relevant passages in the inscriptions [2], sometimes the term is preceded by aprahata-khila, while in others it is followed by akṣaya nīvi or Kṣetra or Khila. Basak [3] explains it as land not given to anyone before the transaction was effected, - in other words unsettled land. This seems to us a better explanation of the term apradā - for literally also it means something which has not been given away. But in cases, where it is found in conjunction with the term - dharma or principle such as apradā dharma or akṣaya Nīvidharma, the interpretation of Basak cannot be justified, for in these the reference is obviously to the non-alienable nature or rather the tenure of the grant, and therefore it can have no connection at all with the types of land.

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1. R.N. Salatore - Life in the Gupta Age. p. 338.
2. Dāmodarpur C.P. No. 1 lines 7-8, No. 2 line 6, No. 3. line 5; No. 4 line 7; E.I. XV. pp 130 ff.
3. E.I. Vol. XV, p. 140, fn. 2; A.M.S.J. III part II, page 480.

The expression gocara [1] found in many inscriptions and mostly prefixed to the expression 'paryantah' formed an important element in the village land. It was usually mentioned in connection with the specification of the boundaries. These pasture lands, were situated in the extreme end of a village and marked its limit. They had formed an essential adjunct to an agricultural village since the Vedic period and were used in common by the villagers for the grazing of their cattle. [2] In the Mitāksarā [3] it is stated that pasture ground shall be allotted for cattle, according to the desire of the villagers. It is also mentioned that "there should be a space of one hundred dhanus (400 cubits) between a grāma and the surrounding fields." Similar injuctions are found in the Manu Smṛti [4], Purāṇas [5] and Arthaśāstra [6]. Roads leading from the villages to these pasture grounds are often mentioned in the inscriptions as go-mārga, go-patha and govāta The Madanpur plate of Sricandra [7] gives the designation of an official as Gocchakapati. One scholar takes this as a prākrt form for the Sanskrit expression 'Gosthakapati and so it

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1. I.B. pp. 5, 21, 87, etc.
2. Panini 1, 2, 73.
3. Mitakshara - pt III ch II p. 21. 22.
4. Manu VIII p. 237, S.B.E. 25, p. 296.
5. Matsya Purāna ch. cc. vi.
6. Artha. śr. II. 2.1. p.67.
7. E.I. XXVIII, pp. 51. ff.

can be taken as an officer in charge of pasture lands and cowsheds.

Immediately before gocara we find either the word trṇayuti or trnaputi in most of the Pāla and Sena inscriptions. Like gocara, it is also used by the way of specifying the boundaries and marked the limit of the donated village or land - svasīmā trṇayuti (or trṇaputi) gocara paryanta. Opinions are divided as to the real meaning of the two terms trṇayuti and trṇaputi. Trṇa means grass and yuti may have meant small plants or shrubs. Thus the expression trna-yuti may have denoted a grassy plot of land lying close to gocara or pasture land, with small plants or shrubs around it. Trna-puti is found mainly in Sena inscriptions, in which ya and pa are often very difficult to distinguish. It might be a corrupt form of the word trṇa-yuti. But puti is also a sanskrit word which Monier Williams translates as a "species of grass". Basak[1] in translating the inscription takes it to mean 'filthy water', without explaining the basis of this very improbable interpretation. Majumdar[2] takes puti to mean a plant under the idea that it is the same as putika of Indian Medical texts but admits that the first meaning (species of grass) would probably suit the content better, especially in connection with trṇa.

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1. E.I. Vol. XII p. 43 fn. 5.
2. I. B. p. 190.

Land Survey, demarcation and boundary disputes

Great care was taken in specifying the location and demarcating the different plots of land sold or donated by copper plates during the period under study. In comparatively early periods, when land was not so scarce people were perhaps not so particular about the minute demarcations of their individual plots of land. The difference of one or two units in the measurement now and then, perhaps did not affect them much. That is why also, encroachments by one upon another's land were not very serious. There is thus practically no mention of land disputes in the older Sutra works. This topic appears in Manu[1]. for the first time and receives its fullest treatment in Nārada and Bṛhaspati. With the steady growth of agriculture and the consequent demand for all types of land, disputes on boundary demarcation became more frequent and this necessitated the framing of definite rules and regulations. A comparison between the two sets of inscriptions - one belonging to a period prior to the 8th century and the other later - at once reveals that little stress was put on the

1. Manu VIII 245-265. S.B.E. 25, pp. 298-301.

exactness of measurement and boundary specification of land in the earlier ones, whereas in the later, the reverse was the case. The Sena inscriptions, particularly, enumerate with great care all the different boundaries of the lands donated. Most probably these had to conform to the regular records of the boundaries of different villages and also those of individual holdings, maintained by the record-keepers' (Pustapāla) department

The earliest reference in legal texts to boundary disputes is to be found in the Viṣṇu Dharmasūtra where it is briefly mentioned in a context of criminal law[1]. There Viṣṇu prescribes that the destroyers of boundaries are to be punished with the highest amercement and the boundaries should again be demarcated by signs. This brief and cryptic reference, however, indicates that there was provision for Sīmāliṅga or signs of boundaries and these were actually maintained at the time. What these marks were, how they were maintained and by what evidence they were determined can only be found in later texts, apparently after boundary disputes, originally

1. The Institutes of Viṣṇu - S.B.E. VII, p. 39 - v. 172.

assigned to the jurisdiction of village councils, came to be decided by the King himself.

Manu[1] deals with sīmāvivāda as one of the topics of litigation and for the first time treats it at some length. He details the manner in which boundaries are to be demarcated. This should be done with embankments, boundary trees of specified kinds, such as vaṭa, pippala, palāśa, śāl, tāl, etc., different creepers and reeds which generally have long life, by tanks, wells, springs, temples on the boundaries. Besides these, there is provision for creating secret marks underground by burying under the boundary, stones, bricks, charcoal, sugar and sand, so that they cannot be seen from the surface. Chaff of grain and pot-sherds are added to this list of invisible marks by Nārada[2], while Bṛhaspati[3] holds that dry cow dung, bones, cows' tails, ashes and cotton seeds may also be used for the purpose. Vijnāneśvara[4] while commenting on Yājñavalkya prescribes the use of elevated ground, charcoal, husks, trees, ant-hills,

1. Manu, VIII 245-265, S.B.E.25, pp. 298-301.
2. Nārada, S.B.E. XXXIII. Ch.11, p. 155.
3. Ibid., p. 351.
4. Mitakṣhara III, 1, pp. 1 ff.

bones, memorials, etc., as boundary marks. In the event of a boundary dispute, the judge is required to determine the boundary by referring to these lingas or signs and if there is doubt, the matter would have to be decided by evidence. Brhaspati[1] maintains that these secret marks should be placed by the land-owner in vessels and deposited underground at the extreme ends of the four boundaries. Afterwards, the owner should take care to point them out to his sons, who in their turn should show them to their own children, after they themselves have grown old. By the knowledge thus passed on from one generation to another, many doubts and disputes with regard to the boundaries might be averted.

From the inscriptions of the period, it is evident that the state tried to enforce these injunctions in practice. The manner in which the four boundaries of a village or a plot of land are enumerated in most of these inscriptions, leaves no doubt about this. Thus, in the Khālimpur copper plate we find that Gopippali - one of the four villages donated by the grant, belonging to the Āmrasaṇḍikā maṇḍala of Sthalikkata district was bounded on the east by the western boundary

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1. S.B.E.XXXIII, p. 351.

of the Udragrāma maṇḍala, on the south by a jolaka (stream) on the west by the khāḍikā (ditch) named Vesanika and on the north by the cattle path running on the borders of the Udragrāma maṇḍala.[1] Again the boundaries of the village of Vāllahiṭṭā, as given in the Naihāṭi copper plate in minute details, included a river, a ditch, a cattle path and a village[2]. In another copper plate of the Senas, the boundaries of the village granted are specified as follows:- east - an asvattha tree; south - a stream; west - a neighbouring holding, and north - a road[3]. There are references to a mango-track[4] and a mustard track[5] forming the boundary of two villages of Ancient Bengal. The interpretation of these two terms is uncertain. The first suggests a path lined with mango trees but the second (sarṣapa yānaka) cannot be interpreted similarly, since mustard is an annual crop. Possibly they were the names by which the two roads were known locally, and the names have no special significance. But most often natural boundaries such as rivers, streams, mounds and big trees, separated one village from another.

This specification of different boundaries became even more minute and explicit, when the plot donated was a particular area belonging to one or more villages. These were always carefully

1. E.I. IV, page 249, lines 41-42.
2. I.B., pp 68 ff.
3. J.A.S.B. LXII, page 61 ff.
4. B.C. Sen - Some historical aspects of the inscriptions of Bengal, p.99.
5. E.I. XVIII, pp. 60 ff.

marked and measured out by the record keepers, usually in the presence of the influential men of the locality. Thus in Dāmodarpur C.P. No. 3, we are informed that when a person named Navaka wished to purchase one kulyavāpa of land from the village of Caṇḍīgrāma, the officer in charge of the eight kulas, the village headman, the heads of the families and the leading men of Paṭāśvṛndaka expressly received the application, but they sent information of the same to the principal prakṛtya (subjects) the heads of families, and the brahmanas of Caṇḍīgrāma, the officer in charge of the eight kulas and the leading men and soforth, to transfer the land after inspecting and severing it from the rest[1]. We have reference to the use of pegs (kīlakas), charcoal, chaff and pits in demarcating one plot of land from another. Thus, in the Mallasārul copper-plate of Goṗacandra[2], the eight kulyavāpas of land donated to Vatsaśvāmin by Vijayasena were bounded on the north by Vaṭavallaka agrahāra and on the west partly by Āmragarttaka and the area was duly marked out by pegs. Again the practice of buying chaff, charcoal, etc., in vessels on the boundaries is attested to by the Baigrām C.P.[3]. Both practices with slight modifications, were in use in many parts of India until very recent times.

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1. E.I. vol. XV, page 114 ff.
2. Ibid., vol. XXIII, p. 155.
3. Ibid., " XXI, page 78.

In order to attach more accuracy and permanency to the record of a land transaction, the names and occupations of the respectable land-owners of the surrounding land and the exact measurement of the land involved, were often clearly mentioned. In 507-8 A.D., King Vainyagupta donated eleven pāṭakas of uncultivated land in five plots. The boundary marks of the first plot of land, measuring 7 pāṭakas and 9 droṇavāpas adjoined to the east the border of the Gunikāgrahāra village, and the field of the carpenter Viṣṇu, to the south - the field of Mṛiduvilāla and the field belonging to the royal vihāra; to the west - the Śurimasirāmpur~nneka field; and to the north - the tank of Dosibhoga and the boundaries of the field of Vanpiyaka and Ādityabandhu[1]. The other four plots of land which changed hands in this transaction were demarcated with similar precision. Similarly, we are told that the 120 aḍhavāpas and 5 unmānas of land belonging to the village of Belahiṣṭī in Varendrī in Puṇḍravardhana bhukti had as its four boundaries:- east: the eastern boundary wall of one āḍhavāpa of rent-free land belonging to a Buddhist vihāra; south - the Nicaḍahāra tank (or the tank belonging to Nicaḍavihāra); west - Nandihari~pākuṇḍī (the tank belonging to

1. I.H.Q. vol. VI, p. 45.

Nandihari and north - Mollāna-Khādi (the tank belonging to Mollāna)[1].

The demand for land was so high that it was manifested through boundary disputes, despite this careful demarcation. Opinions are, however, divided as to the final authority in the settlement of such disputes. Kauṭilya[2], Yājñavalkya[3], Nārada[4], and Bṛhaspati[5], hold that in disputes regarding a field or a house, the decision lay with the neighbours, the inhabitants of the same town or village, the other members of the same community and the senior inhabitants of the district. They were to determine the boundary and to indicate the marks deposited underground as evidence. The King interferes only in exceptional cases. But according to Manu[6], the King is the sole arbiter in boundary disputes. But he may take the evidence of witnesses and of other persons where it is difficult to decide. Nārada[7] lays down that the boundary marks should not be fixed by one man single-handed, though he may be a reliable

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1. IB, pp. 99 ff.
2. Arthaś Tr. III, 9, 10, p. 253.
3. Yājñavalkya - vol. II, part IV, p. 1152.
4. Nārada XI, 2. S.B.E. 33, p. 155.
5. Brhaspati XIX, 8, S.B.E. 33, p. 352.
6. Manu VIII, 253-256, S.B.E. 25, pp. 299-301.
7. Nārada XI, 9. S.B.E. ~~25~~, 33, p. 157.

person. This task should be entrusted to a number of persons because of its importance. But Brhaspati states that in default of witnesses and signs, even a single man, agreeable to both the parties, wearing a garland of red flowers and a red cloak, putting earth on his head, adhering to truth and having kept a fast, might fix the boundaries.[1] No doubt people in ancient Bengal also adhered to these rules and regulations in matters of land disputes and traces of these customs and practices can still perhaps be found in the remote villages of the country. From our own personal knowledge charcoal, potsherds, chaff, ashes, etc., are still used in East Bengal in demarcating the boundaries of land.[2]

1. Brhaspati, XIX, 11. S.B.E. 33, p. 352.

2. ~~Personal knowledge~~.

Measurement of Land

The copper-plate grants, belonging to different rulers and ranging from 400 to 1200 A.D., mention various systems of land measurement, such as measures based on seed sown, measures based on the hasta and hala (plough), measures carried out with the help of standard rods (nalas), etc. There is no inscription known to us in which we find all the different measures mentioned together. Our information would have been complete if the area of the land was given in terms of a recognised unit of measurement or if the length of the measuring instrument or the capacity of the seed-baskets on which the measures were based or the amount of the yield expected from a given area of land were known. The standard followed was not the same everywhere. There were local standards as attested by the reference to 'Samataṭīya nala'[1] (nala prevalent in Samataṭa) and tad-deśīya-samvyavahāra[2] [(nala) prevalent in that locality]. The highest unit in the measurement of land was also not the same in all the inscriptions. As well as the more usual Kulyavāpa and Pāṭaka, droṇa ādhaka and even unmāna were sometimes taken as the standard unit. Variations in the number of fractional measures making up the Kulyavāpa are also often found. This absence of common standard therefore prevents us

1. Barrākpur, C.P. E.I. XV, p. 278 ff.

2. IB. pp. 84 ff, 99, 86.

from arriving at any definite conclusions as to the actual area denoted by each one of these measures and also often to their ratio with one another or to the modern bigha. Thus P. Niyogi rightly remarks: 'Although it may be possible to bring the different standards of measurement, current in different areas, to a common base, it may not be safe to rely too much on this process of equation, for it is possible that a unit may have been called by a common name, but may have conveyed different values in different regions concerned'[1]. Not only is this true of ancient Bengal, but it also applies to modern times as well. For example, in spite of the introduction of the Government standard bigha from medieval times, the ancient unit of the drona still exists locally in many parts of eastern Bengal in the form don. But it equals about 21 bighas in the Chittagong district, 100 bighas in the Sandvip and to about 144 bighas in the Shaistanagar pargana of the Noakhali district. In parts of the Rangpur district, where the ancient unit is lost, but the name still survives, the bigha is known by the name of don. Again, while in one part of the Mymensing district a don amounts to about 17 bighas in another it equals more or less 51 bighas. As pointed out by

1. Puspa Niyogi, The Economic History of Northern India, 1962, p. 81.

Hunter[1], these enormous differences in the measurement of the same unit can partly be explained by the fact that the length of the cubit and the measuring rod is different in different localities.

Among the many units of land measurement current in pre-Pāla Bengal, the most popular was perhaps the seed measure, for in almost all the Gupta copper-plate inscriptions, land was measured out by Kulyavāpas. Later, other related measures such as the droṇavāpa, and the āḍhavapa came to be used. All these three terms etimologically indicated the area of land that was required to sow seeds of the measure respectively of one kulya (winnowing basket), droṇa and āḍhaka[2]. As rice has been the staple food crop in Bengal since time immemorial, it is a natural guess that the seed referred to in the unit measures mentioned above was paddy. This view is supported by the reference to a 'dhānyadroṇa' which we find in Manu[3].

There have been various interpretations of the terms kulyavāpa, droṇavāpa and aḍhavāpa and scholars differ greatly on this point. Here, we propose to study the question from three different points

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1. W. W. Hunter, Statistical account of Bengal, vol. 6, p. 301.
2. Amara, V. 10.
3. Manu, VII, 126, S.B.E. 25, p. 236.

of view: (1) the ratio between the three seed-measures; (2) seed-capacity of a kulya, droṇa and āḍhaka; and (3) their equation with the modern bigha.

On the first question, Monier Williams, on the authority of Pāṇini,[1] holds that one āḍhaka was equal to $\frac{1}{4}$ of a droṇa. This equation can be substantiated by that offered by the Bengal authorities on Smṛti such as Kulluka Bhaṭṭa, Raghunandana and Pancānana Tarkaratna.[2] According to them:-

8 mustis or handfuls	=	1 kunci
8 kuncis or 64 "	=	1 puskala
4 puskalas or 256 "	=	1 āḍhaka
4 āḍhakas or 1024 "	=	1 droṇa

Thus, whilst it is clear from the above that 4 āḍhakas were equal to one droṇa, the ratio between the higher two units - droṇavāpa and kulyavāpa, can be definitely established by the evidence of the Pāhārpur copper-plate[3] inscription of 479 A.D. It mentions that four plots of land in four different localities and measuring $1\frac{1}{2}$, 4, 4, and $2\frac{1}{2}$ droṇas respectively, totalling 12 droṇas, amounted to one and a half kulyavapas. It therefore follows that 8 droṇas went to make one kulya.

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1. India, as known to Panini, cf. V. S. Agrawala pp. 252 ff.
2. Bhārat Kaumudī, Part II, p. 47.
3. E.I., XX, pp. 61 ff.

Coming to the next point, we find that various attempts have been made to calculate the amount of seed which one kulya, one droṇa and one āḍhaka could actually contain. Thus, in the opinion of Pancānana Tarkaratna, one of the Bengali translators of Manu Saṁhitā and the compilers of the Śabdakalpa-druma, one āḍhaka equals 12 to 16 modern Indian seers and one droṇa equals 1 maund and 14 seers to 2 maunds. As one kulyavāpa is equal to 8 droṇas, it follows from the above that a kulya of seed paddy would thus be equal to 12 maunds 32 seers to 16 maunds. These are supposed to be the traditional measures of the kulya, droṇa and āḍhaka as recognised by Bengal authors, especially by writers on Smṛti.[1] Following their line of calculation, Sircar[2] and Maity[3] also hold that a kulyavāpa of land required approximately from 12 maunds 32 seers to 16 maunds of unhusked rice. But to one who has seen a winnowing basket in Bengal, it is totally unthinkable that a kulya could hold as much as 12 to 16 maunds of unhusked rice. A kulya can be of various sizes, yet a standard one could not be expected to hold more than at most four to five seers. Thus it appears that although people in that period

1. Bhārat Kaumudī, Part II, pp. 947 ff.
2. Ibid.
3. S. K. Maity, op. cit. p - 39.

definitely knew the amount of land denoted by kulyavāpa, yet the term itself could have had no direct connexion with an actual kulya. Probably, like many other terms used in the inscriptions, kulyavāpa was also used in a conventional sense.

The problem of whether kulyavāpa can be equated with the modern standard unit of the bighā is even more complicated. Although there is an undeniable formal similarity between the ancient units of kulyavāpa, droṇavāpa, and ādhavāpa and the modern terms kulavay, don and ārhā respectively, there is little agreement in respect to the areas of land which they denote. The modern means do not correspond with the old relation of one kulyavāpa equalling 8 droṇavāpas or 32 ādhavāpas. Apparently, the areas denoted by these terms have undergone many changes in course of time, especially owing to the differences in the length of the cubit and the measuring rod, followed in different districts of Bengal. For this reason there is an inherent difficulty in finding the equation between the ancient measures of land and their modern equivalents and to the bighā. Pargiter defines kulyavāpa as an area of nine reeds in length and eight reeds and breadth, and if nala equals 16 cubits in length and

a cubit 19 inches, the area of a kulyavāpa according to his calculation would be little over an acre ($3\frac{1}{40}$-th bighās) of land.[1] Altekar[2] supports Pargiter. Maity,[3] however, opposes this view on two considerations. Firstly, he points out that the term aṣṭaka-navaka-nala occurs in inscriptions not only with the measurement known as kulyavāpa, but with such other measures as pravarta, droṇavāpa, āḍhavāpa as well. So there is no valid reason why it should be regarded as a further definition of kulyavāpa alone. Secondly, on the evidence of the Dāmodarpur copper-plate no. 5, he argues that the area of a kulyavāpa should be much larger than an acre, because it is hardly likely that the villiage Pancakulyavāpaka, mentioned therein, covered an area as small as five acres only. But here it may be pointed out that instead of taking the term Pancakulyavāpa in its literal sense, it could possibly be just the proper name of a village.

On the strength of the data furnished by Pancānana Tarkaratna

1. I.A. 1918, p. 216.
2. Vākāṭaka Gupta Age p. 332.
3. S.K. Maity - op cit. p - 38.

and the Bengali compilers of Śabdakalpadruma, D. C. Sircar,[1] however, thinks that the area of a kulyavāpa was much larger than that suggested by Pargiter. The common practice, especially in central Bengal, was to transplant in prepared rice fields the seedlings grown in a separate plot of land. This practice is still popular in many parts of Bengal, though in most areas both the systems of sowing seeds directly on the soil and transplanting seedlings prevail side by side. Generally speaking, one maund of paddy seeds is required for three bighas of sowing, while seedlings grown from the same weight of paddy require ten bighas for planting.[2] From this data Sircar comes to the conclusion that, as one kulya of seed equals 12 maunds, 32 seers to 16 maunds, according to the calculation of Pancanana Tarkavatna and others, seedlings grown from the same would thus require 128 to 160 bighas for transplantation. Thus, in his opinion, kulyavapa was originally equal to from 128 to 160 bighas, a droṇavāpa from 16 to 20 bighas and a ādhavāpa from 4 to 5 bighās.

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1. Bhārat Kaumudī, Part 2, pp. 943-948.
2. Ibid - p. 943.

If we believe, however, that the original calculation is based on the system of sowing seed and not of transplanting, the measurement would be considerably smaller. In that case, one kulyavāpa would amount to about 38 to 48 bighas, one droṇavāpa to $4\frac{1}{2}$ to 6 and one āḍhavāpa to about $1\frac{1}{8}$ to $1\frac{1}{2}$ bighas. But, as pointed out earlier, a kulya or winnowing basket could not be expected to hold as much as 12 maunds 32 seers to 16 maunds of seed. Therefore, Sircar's calculation does not seem to correspond to actual facts, and therefore it cannot be accepted. In the present state of our knowledge, it is not possible to reach any definite conclusion on this point and all attempts to arrive at some sort of equation between the different systems of measures prevalent in ancient Bengal and their modern counterparts cannot be definitively solved with the materials at our disposal.

Other seed measures such as the pāṭaka, khārikā, unmāna, kāka, kākanika, etc., came to be mentioned frequently, especially during and after the rule of the Pālas. Except the first two, all the others were subdivisions of the three seed measures discussed above and they indirectly testify to the growing fragmentation of land. It is interesting to note that after the Guptas the term kulyavāpa gradually fell into disuse and the land measurement was often given in terms of smaller units like droṇavāpa, āḍhavāpa, and sometimes even unmāna.

There must have been some reason to account for this tendency towards the exclusion of the term kulyavāpa as a land measure. Thus the Govindapur copper-plate of Laksmanasena [1] refers to a plot of land measuring 60 droṇas and 17 unmānas which could have been otherwise stated as 7 kulyavāpas, 4 droṇavāpas and 17 unmānas. The Anuliā copper plate again excludes kulyavāpa but includes pāṭaka along with droṇa, ādhavāpa, unmāna and kākini. The nine droṇas of this grant could have been expressed as one kulyavāpa and one droṇa. Similarly, the 120 ādhavāpas mentioned in the Tarpandighi plate [3] could have been alternatively stated as 3 kulyavāpas and 6 droṇas.

The earliest mention of pāṭaka is found in the Gunāighar [4] copper plate of Vainya Gupta (508 A.D.). The use of the term as a measure current in ancient Bengal in the 6th and 7th centuries is also attested to by the Tipperah copper-plate and in two Ashrāfpur copper-plates. It is also mentioned along with other measures in the Anuliā copper-plate [5] of Laksmanasena, which records the grant of a piece of land measuring 1 pāṭaka, 9 droṇas, 1 ādhavāpa, 37 unmānas and 1 kākanika. As it occurs along with other known seed measures, it is quite reasonable to suppose that pāṭaka was also a seed measure. That it was a bigger ~~unit than the~~

1. I.B. pp. 92 ff.
2. Ibid. pp. 81 ff.
3. Ibid. p99 ff.
4. I.H.Q. VI, pp. 45 ff
5. I.B. pp. 81 ff.

unit than the kulyavāpa is definitely proved by the said Gunāighar inscription, wherein we find that a pāṭaka in those days was equal to 40 droṇavāpas. In other words, 5 kulyavāpas went to make one pāṭaka. But it is difficult to determine whether this ratio between a pāṭaka and droṇa or kulya continued to be the same, especially in later periods, for in many of these the term is used not as a measure of seed but in the sense of a village or part of it. For example, the Śaktipur grant of Laksmanasena[1] records the gift of 6 pāṭakas, each of which is known by a separate name - Rāghavahaṭṭa, Varāhakena, Vallihiṭa, Vijahārapura, Damaravāda and also Nimāpāṭaka only a portion of which was included. Again, the names Talāpaṭaka, Markaṭast pāṭaka, and Vatsanāga pāṭaka found in the Ashrāfpur plates[2] possibly refer to villages or areas included in them. This has led Kielhorn[3] to explain the term pāṭaka as grāmikadeśa and interpreted it as part of a village, outlying portion of a village or a kind of hamlet, which had a name of its own, but really belonged to a larger village. According to the Abhidhānacintāmani a pāṭaka is one half of a village.[4] In fact, the Bengali word pāḍa seems to have

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1. E.I. XXI, pp. 211 ff.
2. M.A.S.B. - Vol. I, pp. 85 ff.
3. E.I. XVII, pp. 318-135 ff.
4. Abhidhānacintāmani - pp. 135 ff.

evolved out of the term pāṭaka. Similarly, outside Bengal in northern and western parts of India padra or padraka - another form of the word - has been in use for a long time. From this we can conclude that the term pāṭaka when found mentioned with other seed-measures should be taken as one of them. But when found alone or in conjunction with some proper name, such as we get in the inscriptions of the Senas, it should be interpreted as a village or part of a village.

Another land measure, larger than the kulyavāpa and droṇavāpa was the bhū khāḍi or khāḍikā mentioned in the Mādhāinagar[1] and Sunderban[2] copper-plates of Lakṣmaṇasena. These seem to be synonymous of khārivāpa, mentioned in the Amarakośa.[3] As khāḍika is mentioned along with droṇa, unmāna and kākini in the second inscription, most probably it was also allied to the seed-measure. Again, it is known from Amarakośa[4] that 16 droṇas were equal to one khāḍvivāpa. It therefore follows that 2 kulyavāpas (16 dronas) were needed to make one khārivāpa or khāḍikā.

Next we come to the important measure known as unmāna, which is however, sometimes found in inscriptions in slightly different form of udāna and udamāna. Of these three forms, udamāna is found in the

1. I.B. p. 106.
2. Ibid. p. 169.
3. Vaisya-Varga, v.10.
4. Ibid.

Belwā[1] and Āmgāchi[2] copper-plates of Vigrahapāla III. The form unmāna occurs in the Naihāṭi copper-plate of Ballalasena[3] and the Govindapur[4], Tarpaṇḍīghi[5], Anuliā[6] and Sunderban[7] copper-plates of his son Laksmansena. It is interesting to note that unmāna, which is used in most of the inscriptions as a subdivision of droṇavāpa, āḍhavapa, etc., is referred to as the standard land measure in the Calcutta Sāhitya Parisad copper-plate of Viśvarūpasena.[8] In line 59 of this record, the word unmāna has been used as a synonym for udāna, which is mentioned in several passages of the inscription as the standard land measure. As regards the area denoted by the term unmāna, we get some useful information from the Sundarban copper-plate of Laksmanasena[9] mentioned above. In it there is a line which gives the measurement of the land as 3 bhū-droṇas, 1 khāḍika, 23 unmānas, and $2\frac{1}{2}$ kākinis. There is further information as to how the land was

1. E.I. XXIX, pp. 9 ff.
2. Ibid., XV, pp. 293 ff.
3. I.B. p. 68.
4. Ibid., p. 92.
5. Ibid., p. 99.
6. Ibid. p. 81.
7. Ibid., p. 169.
8. Ibid., p. 177.
9. Ibid., p. 171.

measured. We are told that a standard of 32 cubits was followed in carrying out the measurement and that one unmāna was equivalent to 32 cubits and a cubit to 12 aṅgulas. On the basis of this information, D.C. Sircer[1] thinks that the area denoted by the term thus would be - "theoretically 32 x 32 cubits - 704 square cubits corresponding to about $\frac{1}{4}$ of a bighā". He further states, "If we assume that the āḍhavāpa was originally equal to about 5 bighās and the unmāna $\frac{1}{9}$ of a bighā, it is possible that 45 unmānas made one āḍhavāpa." But it is impossible to reach any definite conclusion on this point also.

Kāka or kākini usually represents a lower measure than the measures so far mentioned, for in the Naihāṭi C.p.[2] the term kāka comes last in the list of measures, which includes bhū-pāṭaka, droṇa, āḍhaka, and unmāna. This measure is even now prevalent in many parts of Bengal, although the area indicated varies from place to place. According to Hunter,[3] a kāni, a modern variation of the

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1. I.H.Q. XXVI, p. 309.
2. I.B. p. 68 ff.
3. W. W. Hunter, op. cit, vol. V, pp. 95-448.

~~a Kāni, a modern variation~~ of the ancient term, is a little above an acre in the Dacca and Mymensing districts and is regarded as $\frac{1}{16}$ of a don (droṇa) in the latter.[1] In the Faridpur district 30 Kāṇis are regarded as equal to a pākhī (3622 square cubits). In the Sandwip area, 4 Kadās make one gandā, 20 gandās equal 1 Kāni and 16 Kānis form one don.[2] These facts would suggest that the ancient Kāka or Kākini was $\frac{1}{16}$ of a droṇa. None of these indications are, however, supported by inscriptional evidence. For example the Anuliā plate[3] speaks of a piece of land measuring 1 Pāṭaka, 9 droṇas, 1 Āḍhavāpa, 37 unmānas and 1 Kākini. Similarly in other inscriptions of the period, there are a number of other measures mentioned in between a droṇa and a Kākini. So the equation of the ancient unit of the Kākini to $\frac{1}{16}$ of a droṇa does not apply to our period.

Though in most of the land grants land was measured by the seed measures mentioned above, yet in all the known cases prior to the 8th century the authorities at the time of making over the plots of land to the purchaser or the donee, caused them to be severed according to the nala (reed measure) of 8 and 9". This is true not only of the Gupta land-grants, but those belonging to the Senas too. Most of the Pāla records do not furnish any precise details about the measurement of land, because in most of them the object of the grant

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1. W. W. Hunter - op. cit. vol. V, p.95, 448.
2. Select Ins. vol. I p.332. fn.
3. Ibid. p.81.

was one or more village. Scholars differ greatly in determining the exact length of this nala and there is still no unanimity regarding the interpretation of the phrase aṣṭaka-navaka nalābhyām occurring in the Baigrām[1] and Pāhārpur[2] plates and the 3 copper plates from Faridpur.[3] Pargiter[4] holds that in the past the number of cubits in a nala varied from 16 to 5 and explains the phrase aṣṭaka navaka etc. as an area of 8 reeds in breadth and 9 reeds in length. In the opinion of B.C.Sen,[5] two rods were used in turn for the measurement of the length and breadth of the land respectively - one measuring 9 cubits and the other eight. Satore[6] seems to hold the same view. But to us it seems to be quite impractical to use two different rods for measuring a plot of land. To employ one unit for length and another for breadth would be most confusing and quite inconvenient also. Sircar offers another interpretation.[7] According to him the measuring rod was 6 cubits long, for this length tallies with that prescribed by Nārada and Kauṭilya. He further points out that the peasants of Bengal and Bihar still use such a rod, though the length might vary slightly from place to place. But his interpretation of the term aṣṭaka-navaka-nalābhyām as a measurement of a rectangular plot the breadth of which is eight times and the length nine times the standard rod,

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1. E.I XXI p.82 lines 18-19.
2. E.I XX pp. 61 ff.
3. I.A. 1910. pp. 201 ff.
4. I.A. 1910 pp. 195-216,
5. B.C Sen. Some historical aspects of the inscriptions of Bengal pp.520 ff.
6. R. N. Satore. op. cit. p.357
7. Select Ins. vol. I p.325 f.n 7.

seems quite unlikely for it is on the face of it most improbable that large areas of land such as Kulyavāpas and Pāṭakas should have been measured off in squarish rectangles in this way. The true interpretation of the strange term aṣṭaka-navaka-nalābhyām - "still eludes us and we would rather confess our ignorance than force on the phrase an interpretation which can hardly have any relation to practical field surveying."[1]

Whatever might be its actual length, the nala was usually measured by the hasta of different persons at different places and periods. Thus while in all the three Faridpur copper plates,[2] the land was measured by the length of the hasta of upright Śivacandra, in the Baigrām[3] copper plate it was done by that of Darvīkarma. They were probably the royal surveyors of land or officers connected in some way with the fiscal department of the king. In the Anuliā[4] copper plate land granted by Lakṣmaṇasena was measured according to a nala known as Vṛṣabhaśaṅkara nala. It is well known that Vṛṣabhaśaṅkara was one of the birudas of Vijayasena and so possibly the term Vṛṣabhaśaṅkara-nala referred to a nala based on the forearm (hasta) measurement of the king Vijayasena himself. Strangely enough, Vijayasena himself granted land according to the nala prevalent in

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1. Quoted from the Econ. Hist. of N. India during the Gupta age - S. K. Maity p.37.
2. I.A. 1910, pp 200 ff.
3. E.I. XXI p.82 pp. 201 ff.
4. I.B. p.81.

Samataṭa (Barrackpur plate).[1] It is possible that this same samataṭīya nala later on changed its name and came to be known as Vṛsabhaśaṅkara nala during the reign of Lakṣmaṇasena. To measure land according to a standard which varied with every change of monarch would, however, lead to many complications, and it is more likely that the measure is that of a standard nala kept in the royal palace. Besides these, we have further mention of a nala consisting of 56 and 22 hastas in two other copper plates of the period.[2] Thus it is clear from the above that there was no uniformity in the length of the hasta followed in different parts of ancient Bengal. This is clearly proved by the phrase tatrādeśavyavahāranalena (according to the nala prevalent in that area) found in the Tarpaṇḍīghi copper plate of Lakṣmaṇasena.[3] It should be remembered that the hasta signified not the length of the hand, but the distance from the tip of the elbow to the middle finger. Pargiter[4] suggests that this distance varied from 18 to 21½ inches and accepts the average of 19 inches for the standard hasta. But this is not correct, for the length of a hasta is given as equal to 24 aṅgulas in both the Mārkaṇḍeya Purāṇa[5] and the Arthaśāstra[6] and as one aṅgula is said to be $\frac{3}{4}$ of an inch, one hasta must be 18 inches, which is still

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1. I.B. p. 57.
2. I.B. p. 92; E.I. XXXI p. 13.
3. I.B. p. 102, line 36.
4. I.A. 1910 p.215
5. Mārkaṇḍeya Purāṇa XLIX. 37.
6. Arthaś. II.20. 8-12. p.158.

considered as a standard measure current in India.

We find other miscellaneous references to land measures in our period. In this connection mention may be made of the plough measure, which was technically known as the hala. We have reference to hala as a land measure in Pāṇini (IV 4 97) and Patañjali (1.1.72). Bānabhaṭṭa was also familiar with the term, for he refers to the grant by Harsha of 100 villages delimited by 1000 ploughs.[1] In our period the Dhullā copper plate of Śrīcandra[2] records the grant of land in Puṇḍra-bhukti. It was gathered from five different villages and measured in all 19 halas and 6 droṇas. Literally hala would indicate as much land as could be ploughed with one plough. It was known approximately how much land could be generally cultivated with a standard plough in a day, though it is impossible to calculate it now; for the size of the plough, quality of the soil and the nature of the crop grown on it vary from time to time and place to place. Thus the extent of land indicated by the term hala cannot be ascertained. But this much is clear from the inscription mentioned above, that it was a bigger unit than the droṇa and was perhaps also connected in some way to the current seed-measure.

The land measure pravāṭṭavāpa is mentioned in only one of the inscriptions found in Faridpur.[3] Here we are told that the donor

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1. Bānabhaṭṭa. Harshacarita. p. 199.
2. I. B. p. 165
3. No. 2 grant of Dharmāditya I.A. 1900. p. 201 lines 15-16.

purchased an unspecified portion of a Kulyavāpa of waste land plus a prvarttvāpa area, for the price of 2 dīnāras only. But it is known from the other copper plates found in the same area that the usual price of one Kulyavāpa of cultivable land was then four dīnāras.[1] From this Pargiter suggests that pravarttavāpa is smaller than half a Kulyavāpa. However, it is clear, that the area denoted by the term was much smaller, since an appreciable fraction of one Kulyavāpa plus one pravarttavāpa cost only the price of half a Kulyavāpa It is, however, clear that, as the term is found after Kulyavāpa and contains the element vāpa, it was also allied to the seed-measure.

One more single reference to a land measure - pada - can be traced in an inscription belonging to the Deva kings of Bengal.[2] We come across this measure in connection with cultivable lands and wells in the three copper plates of the Vākāṭaka king Dhṛivasena.[3] We know that as a linear measure, a pada is equal to only 12 aṅgulas or half the length of a hasta (i.e. 9 inches). So the 17 padas mentioned in the above grant would thus only amount to 12 feet and 9 inches. Monier Williams interprets the term as a square foot. But according to Fleet,[4] "It seems more likely that such an expression as a hundred

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1. I.A. 1910 p.201 . 27.
2. F. A. Khan-Mahamati p.23.
3. E.I XI pp.104-114.
4. C.II. III p.170 fn.4.

padavartas means a plot of ground measuring a hundred feet square each way i.e. ten thousand square feet, rather than only one hundred square feet, which would measure only ten feet each way and would be rather a small area for a grant."

Lastly, we may mention the land measure known as yasti, mentioned in a Sena land grant.[1] The Pāli term yatthi, found in the Jātakas seems to be an allied measure.[2] It has been suggested by Mehta that 1 yatthi = 2 vitastis, which again amounts to 18 inches.[3] Again from another source we come to know that among the land measures still prevalent in parts of Sylhet district, the hala was connected with the yasti, - the ratio between them being 1 hala = 336 yastis. In the above India Office copper plate, however, we are told that the land measured $1\frac{1}{4}$ dronika and 22 yastis. If we can find out the correct ratio between a hala and a drona, we can also calculate that between a yasti and a drona. But as mentioned earlier, in the present state of our knowledge of the system of land measurement prevalent in ancient Bengal, we can hardly arrive at any definite conclusions on this point.

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1. E.I XXVI, p.1 ff. India Office plate of L.Sena, line 41.
2. Pre-Buddhist India p.237.
3. I.A. L II pp.18 ff.

Land Tenure

The terms and conditions of the different grants of land and the system of tenure under which the donee was to enjoy them are more or less the same in all of the land grant documents, although the terminology varies from one inscription to another. It is indeed a difficult task to define the terms used in connection with the system of land tenure, from the few fragmentary references found in the inscriptions of ancient Bengal. The inscriptions prior to the eighth century A.D. are land sale and land-grant documents combined into one and as such the tenure under which the state transferred its right over the land in question must have had an important bearing on the whole transaction. It should be noted, however, that not all the inscriptions of this period contain a reference to the system of land tenure prevalent at that time. For example, Dāmodarpur copper plates No. 3 and 4 [1], Faridpur plates No. 2, 3 and 4 [2] the Tipperah copper plate of Lokanātha [3] etc. do not mention the form of tenure under which the land was bought and then transferred to the donee. The reason behind this perhaps might be found in the fact that as most of these were pious grants, these terms

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1. E.I. vol. XV pp. 114, 115.
2. A.M.S.J. vol. III part II, pp 484-485.
3. E.I. Vol. XV p. 301.

and conditions were known to have automatically devolved on the donee, and the engraver did not consider it worth mentioning separately. Probably many of these terms were used in a conventional sense and in course of time their mention in copper plate grants might have become a mere formality or legal fiction.

Among the different forms of land tenure menioned in these pre-Pāla grants, nīvi dharma,[1] akṣaya-nīvi-dharma[2] or akṣaya-nīvi[3] apradā-dharma[4] and apradākṣayanīvi[5] are most important. But after the eighth century another term bhūmicchidranyaya[6] came to be used more frequently and in course of a few years completely replaced the systems mentioned earlier. Although in actual practice, there was possibly very little difference between the two forms, it is difficult to explain why the terms nīvi dharma etc. fell into disuse.

Nīvidharma is a term which different Indologists have tried to interpret in different ways depending, of course, on the meaning they preferred to choose for the word nīvi. According to Jayaswal,[7] it means nothing more than a despatch, document or file, and he cites a passage in the Arthaśāstra to support his view[8]

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1. Dāmodarpur C.P. No. 1 E.I. Vol. XV, p. 114.
2. Baigrām C.P. E I. XXI p. 81; and Pāhārpur C.P. E.I. XX p. 59.
3. Baigrām C.P. E.I. vol. XXI p. 81 line 5
4. Dāmodarpur C.P. No. V. E.I. vol. XV p. 116.
5. Ibid No. II E.I. Vol. XV p. 114.
6. Munger C.P. G.L.M. p. 39, Bhāgalpur C.P. G.L.M. p. 61. Bānagarh C.P. G.L.M. p. 97, Rāmpāl C.P. I.B., p. 5; Belāva C.P. IB. p 21; Anuliā C.P. IB. p. 87.
7. I.A. 1918 p. 51.
8. Arthaś. tr. II. 6.13. pp. 61, 62.

The expression much similar to the modern term red-tape is derived from the physical feature 'the string' which was tied round the despatches or official returns in those days. [1] But a close examination of the passage in question refutes Jayaswal's contention for there it certainly refers to the amount which remains as a net balance after considering all items of income and expenditure [2] His interpretation runs counter to one more reference in the Arthaśāstra where Kauṭilya prescribes the various forms of punishment for writing down wrongly an item of income, expenditure or balance (nīvī) [3] Thus it is clear from these passages from the Artha-śāstra, the term nīvi was everywhere used to denote the balance out of the income and expenditure. In the Amarakośa [4] the word nīvi is quoted as synonymous with paripāṇa and muladhana and Basak thinks that this meaning of the term suits the contexts in the inscriptions much better than that offered by Jayaswal. [5] He holds that nīvi was thus the capital or principal in the matter of sale and purchase and out of the interest from which expense is to be met. Thus, when a piece of land was donated to someone according to this principle of nīvi dharma, it meant that although the grant was perpetual, the donee could in no circumstances destroy the principal,

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1. Cf. S.K. Maity - op cit p 26.
2. Arthaś. II 6.13 pp. 61, 62.
3. Ibid II 7.35. p. 98.
4. Amara 9.80. p. 218.
5. I.A 1919 p. 13.

but had to make use of the income accruing from it, only for the purpose specified in the document, for example the maintenance of a saṃgha or vihāra. Land granted in this way remained beyond the scope of further transfer in future. In other words, the state, although it sold or granted plots of land out of unappropriated waste or settled areas like villages, still reserved to itself certain rights over the property, and the donee was allowed only usufructuary right over the land. He did not possess the right of further alienation by sale or mortgage.[1] This interpretation is also corroborated by the evidence of Dāmodarpur copper plate No. 1. where it is found that the Brahmana Karppaṭika applied to the local council for their permission to purchase one Kulyavāpa of wasteland according to nīvidharma, for the performance of his Agnihotra sacrifices.[2] The land thus procured was to be enjoyed by him as long as the moon, the sun and the stars exist.

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1. In the Dhānaidaha C.P. line 8, Basak reads nīvidharmakṣayena and translated "on condition of destruction of non-transferability". He thinks that this is an instance where the applicant ... Viṣnu desired to buy one Kulyavāpa of land by revising the terms of nīvidharma and then transferred it to a latter grantee Varāhaśvāmin (E.I. XVII p - 347). Maity seems to support Basak and says that the land originally belonged to two Brahmanas and the applicant wanted to purchase it by destroying the principle of nīvi-dharma (Maity - op. cit p. 29) But it is indeed a doubtful reading, because of the badly mutilated condition of the plate. Moreover, as this runs counter to all other inscriptions of the same group Ghosal suggests the reading nīvidharmākṣayena which is the compounded form of nīvidharma + kṣayena and rightly translates as " according to the custom of non-destruction of nīvidharma" (H.R.S. - p.199. fn. 2)

2. E.I. XV p. 114

There are references to this form of land tenureship in inscriptions outside Bengal also.[1] In most of these the term nīvi denotes permanant endowment. The nature of this form of land-tenure is very similar to the "waqf"[2] and "devottar"[3] properties of present times.

The permanent nature of the tenure denoted by the term nividharma is made still clearer when the word akṣaya is added to it. Literally it means indistructable or perpetual and it is often added in order to give further emphasis to the permanancy of the endowment (Akṣaya - nīvi dharmena datta; - (Pāhārpur C.P.E.I.XX. p 63 line 19) This is clearly indicated by the fact that wherever the term nīvidharma or akṣaya nīvi-dharma occurs, the expressions - Śāśvata - Candrārkkatāraka - sthiti - kāla - sambhogyam (as long as the moon, the sun and the stars exist) or putra-pautra - kramena (to be enjoyed by sons, grandsons and their heirs), follow invariably. They point strongly to the permanant nature of the grant and make the donee's position secure from future misappropriation or eviction.[4] Sircar also holds akṣaya - nīvi to be permanant endowment which could not be withdrawn and whose interest alone could be enjoyed.

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1. S.K Maity's, op. cit - p 28.
2. F.B. Tyabji, — Muhammadan Law. Bombay 1940 pp 531 ff
3. D.F. Mulla - Principles of Hindu Law. 12th edition, Bombay 1959, p. 581.
4. Select Ins. ——— p. 147, fn. 3.

It is however, very doubtful if all the land in the country came under the regulation of this law of nīvidharma. Most probably, it applied only to estates created for pious purposes. It is also not known whether lands granted under this form of tenure were made rent free permanently, or "became liable" as Ghoshal [1] suggests," to a progressive enhancement of the revenue till the normal rate was reached". Evidence from inscriptions, however suggests to the contrary and proves that immunity from taxation was one of the privileges enjoyed by the assignee in most of the cases. The term Samudayabāhya found in Dāmodarpur C.P. No. 1 [2] and Bāigrām copper plate [3] seems to support our point. As the holdings under discussion were without exception created for pious purposes, it was but natural that they should have been tax-free.

Another term, 'apradā' is often found either separately [4] or in conjunction with akṣayanīvi [5] in inscriptions prior to the eighth century. We thus find one Amṛtadeva making an endowment of five kulyavāpas of khila land along with vāstu by a copper plate charter and according to apradā dharma to Bhagavān Śveta Varāha Śvāmin in Dāmodarpur C.P. No. 5. [6]

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1. U.N. Ghoshal, Agrarian System in ancient India - p. 41.
2. E.I. Vol. XV p. 114.
3. Ibid ,, XXI p. 81.
4. Dāmodarpur C.P. No. 5 E.I. XV, p. 143 line 18.
5. Ibid No. 2 E.I. XV. p. 133 line 6.
6. Ibid C.P. No. 5. E.I. XV, p 143.

Literally, apradā can have three meanings -

1. that which cannot be alienated,
2. that which does not yield anything and
3. that which has not been given before.

But when the term is used in a compound form with dharma, we think that the first meaning should be accepted and thus in the inscriptions it implied that the donee had all the rights to enjoy the benefits of the endowment, without, however, any right for further gift or sale.[1] In other words, it was also more or less synonymous with nīvi dharma. It is, however, difficult to explain why it is found in D.C.P. No. 2 along with akṣaya nīvi dharma. It is possible that there might have existed a slight technical difference between the two terms, or that it was simply added to give further stress to the perpetual nature of the grant.

At the end of the Gupta age, for some reason or other, a new term 'bhūmicchidranyaya' came to be used in place of the usual 'nīvidharma' etc. in the land grants of Bengal. It is found in almost all the copper plate grants not only of the Pālas and Senas, but also of the Candras, Varmans and other contemporary rulers.[2] Although like nīvidharma etc. it is in most cases followed by the conditions of Śāśvatacandrārkkatāraka etc. there must have existed some slight technical difference between

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1. Select Ins. — p 224, fn. 10
2. Infra i.

the two. But unfortunately after the lapse of so many years, it is not possible to determine on what grounds they differed from one another. Bhūmicchidranyayena literally means "according to the principle of a hole in earth". Accepting this meaning, Bhandarkar [1] thinks that a grant made according to this principle meant that as holes in the earth are filled up in time and the earth is whole again and so unchanged, so a grant should survive all revolutions and last as long as the sun, the moon etc. exist.

There is however, a chapter in the Arthaśāstra [2] entitled Bhūmicchidrāpidhānam, which deals mainly with uncultivable land. Earlier editors of the text have taken this term to be bhūmicchidravidhānam, but Kangle [3] ~~following the~~ following the fragment of the Devanāgari manuscript of the Arthaśāstra from Patan, thinks that the correct original reading should be bhūmicchidrapidhānam as cchidra pre-supposes apidhāna (covering).

In this chapter Kauṭilya enjoins that the King should allot this uncultivable land as pastures for cattle or grant them to Brahmanas for Veda-study and soma sacrifices. They could also be utilized also as game forests, elephant forests or timber forests and their boundaries are to be fixed by the King himself. Thus bhūmicchidra land was clearly

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1. I.A. 1872 Vol II p. 46. fn.
2. Arthaś II 2. p. 34.
3. Arthaś tr. I.I. 4. ~~fn.~~ p. 2. fn.

distinguished from settled parts like a village or a town, including cultivable lands.

The same meaning is found also in Yādava-Prakaśa's Vaiyayanti, where it is interpreted as kṛṣyāyogya-bhū or a plot land unfit for cultivation. This is corroborated by at least one inscription of our period. There is a line in the Kamauli copper plate grant of Vaidyadeva [1] which clearly states that no revenue is to be collected from uncultivable lands - bhūmiddhidranca yatkincit karagrāhyam. Such land was not therefore liable to assessment.

Barnett [2] accepts the interpretation of Kauṭilya and Yādavaprakaśa and explains the term as the condition under which tenants hold land in wilderness or forests. But he wrongly concludes that the King, however, reserved the right to eject the grantee, whose position, therefore, was that of a tenant at will and not of a proprietor. His view cannot stand the test of inscriptions, because in most of them it is specifically stated that the donee was to enjoy the land perpetually and even future rulers are warned against confiscating their lands. Thus to us Ghoshal's opinion that under the rule bhūmicchidranyaya land was granted with such rights of ownership as were acquired by a person making barren land cultivable for the first time, as embodied in the Smṛtis, seems to be a more appropriate definition of the term. [3] Even then it is hard to explain the fact that all the lands granted under this principle were treated as

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1. G.L.M. p. 134. line 51.
2. J.R.A.S. 1931. pp. 165 ff
3. H.R.S. p. 212, fn. 4.

uncultivable, especially where the subject of grant is one or more villages. In many of the inscriptions, it is clearly stated that the lands donated included cultivable fields. In such cases, the original meaning of bhūmicchidra as offered by the Arthaśāstra is not at all applicable. So it is better to conclude that though in earlier times this term might have denoted land unfit for cultivation, in course of time it lost its original sense, and came to be used as a matter of convention only. Most often its mention in the land grants served as a mere formality. It is also clear from the inscriptions that the term was used to emphasise permanent, heritable land tenureship and was found only in grants made for some pious purposes.

Price of land

Our knowledge with regard to the price at which land was sold in ancient Bengal is derived almost exclusively from the copper plate inscriptions prior to the eighth century A.D. There is no direct reference to the price of land in the numerous grants of the Pālas, the Senas and their contemporaries. The reason is obvious and can be explained by the fundamental difference existing in the nature of the two sets of copper plate grants. The former were not like ordinary royal grants of land made over to Brāhmanas or dedicated to Gods. They are a peculiar kind of sale deeds, recording the state confirmation of land sales transacted between the government and the purchasers, who bought land on payment of prices at the usual rate prevailing in different localities. These purchases of land were generally made with a view to donation to either temples or Brāhmanas. The sale rate was calculated in gold dīnāras.

But the case was different with the copper plate grants of the Pāla period onwards, whereby usually either the King, the queen or one of their officials donated lands for some specific purpose or simply to increase their own religious merit, with the result that

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1. Exceptions to this general practice may be found in:-
   (a) Gunāinghar C.P. of Vainyagupta, I.H.Q. vol. VI page 40.
   (b) Jayanāga Ghosa's Vappaghosavata C.P., - E.I. vol. XVIII p. 60.
   (c) Tipperah C.P. of Lokanātha, - E.I. XV. p. 301.

these grants do not mention the value of the land. These were thus only land-grants, whereas the former were records of land-sale as well as land grants.

The Sena land grants, however, generally furnish the amount of annual income derived from the donated lands, - often in exact detail.[1] From this we can, no doubt, have a rough idea of the price of land in that particular period; Yet this information can at best be regarded as indirect, and therefore cannot be relied upon until it is supported by other evidence.

The earliest of the Gupta inscriptions found in Bengal - the Dhānaidah copper plate of Kumāragupta[2] does not mention the price of the land purchased. The Dāmodarpur[3] and Faridpur copper plates,[4] however, supply us with valuable data with regard to the price of land then current in ancient Bengal. The dates of the five Dāmodarpur copper plates cover a period of ninety years - 124 Gupta era to 214 G.E. (443-533 A.D.). If we analyse all the five Dāmodarpur copper plates except no. 3, we find that for about a century, the price of one Kulyavāpa of land in Puṇḍravardhana bhukti was three dīnāras. The land purchased as recorded by the Baigrām copper plate of 128 G.E. was situated in the district (viṣaya) of Pañcanagarī[5] and the price recorded in the inscription was only two dīnāras for each kulyavāpa, though both Baigrām and Dāmodarpur belong to the same Dinājpur district

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1. For example the Govindapur C.P. of Lakṣmaṇasena refers to the rule of return of 15 purāṇas for each droṇa and gives the total income from a village consisting of 16 droṇas and 17 unmānas at this rate as 900 purāṇas. I.B. p.96, lines 38-39.
2. E.I vol. XVII page 346.
3. E.I vol. XV p.114-115.
4. A.M.S.J. III part 2 p.483-485.
5. E.I vol. XXI page 78.

in East Pakistan. But from the inscriptions, we know that the first was within the district (viṣaya) of Pancanagarī, whereas the second was in that of Koṭivarṣa and the difference in price for one Kulyavāpa of land between the two places was one dīnāra. This probably indicates less demand and therefore less populousness of the district (viṣaya) of Pancanagarī, as compared to that of Koṭivarṣa. There is some uncertainty in the reading of the line which gives the price of the donated land in Dāmodarpur copper plate no. 3. Basāk betrays a doubt as to whether it should be two or three dīnāras.[1] The word "dvaya" (two) was at first omitted but later on inscribed on the lower margin of the plate. Moreover, we do not know in which viṣaya, the village Caṇḍīgrāma of the last mentioned land grant was located. But the fact that there still exists a village named Caṇḍīgrāma quite close to Baigrām or Bāyeegrām in modern Dinājpur district, may lend support to the supposition that both were situated in the same district of Pancanagarī and the price for one Kulyavāpa of land was two dīnāras in both places. This also shows that the price of land varied considerably from place to place and even within the same district or province. Again, from the Pāhārpur copper plate[2] we know that the Brahman Nāthaśarmā and his wife Rāmī purchased one and a half Kulyavāpa of fallow land at the rate of two dīnāras per Kulyavāpa in Puṇḍravardhanabhukti in 158 G.E. (474 A.D.), although the inscription is silent on the district (viṣaya) in which the land was situated.

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1. E.I. vol. XV p.137.
2. E.I. vol. XX page 59.

But from the price - two dīnāras for each Kulyavāpa - as also from the fact that Pāhārpur is only about twenty miles from Baigrām, it may reasonably be inferred that it was also situated in the same visaya or district.

With the above series of inscriptions, it is natural to compare another set of five inscriptions of a very similar character from Faridpur, which have been assigned on palaeographical grounds to the latter half of the sixth and the first part of the seventh centuries A.D. These grants were issued during the reign of three kings - Dharmāditya, Gopacandra and Samācaradeva, and together they covered approximately fifty years. From two plates belonging to the reign of Dharmāditya[1] and one to that of Gopacandra[2], it becomes clear that, unlike the price of land in the district of Dāmodarpur, the rate of land in this part of Eastern Bengal remained constant at four dīnāras for each Kulyavāpa for more than fifty years. This high price was possibly due to the quality of the soil, for all the lands referred to in these three plates are said to be cultivable. The Mallasārul copper plate inscription of Gopacandra,[3] however, does not mention the price of land purchased, while there was no such need in the case of the Ghāgrāhāṭi copper plate of Samācaradeva[4], because in it the land was granted free to the applicant.

From the above analysis we can conclude that the price of land varied from place to place, as it varies even today in Bengal. It was three dīnāras for one Kulyavāpa in the district (visaya) of

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1. A.M.S.J. vol. III, part 2 page 483-484.
2. Ibid. page 484.
3. E.I. vol. XXIII p.155.
4. A.M.S.J. vol. III part 2. p.485.

Koṭivarṣa, two dīnāras in Pancanagarī and four dīnāras in the Faridpur area. Several factors were responsible for this difference and may be examined one by one. Local differences must have played a great part in determining the rate of land in the different regions of Bengal, or even in the same region, as can be seen even today in Bengal. In most of the copper plate grants of this period, the rate of the land sold is said to be the usual one prevalent in the different villages.[1]

Fertility of the soil was another factor determining the price of land. The lands in the nāvya or deltaic region were certainly more fertile than those of other parts of Bengal. This possibly explains the high rate of price mentioned in the Faridpur grants of Dharmāditya and Gopacandra.[2] It is said clearly in No. I plate that in the coastal districts this had been the prevalent price.[3] In plates No. II and III, there are hints to the same effect.[4] Most probably, land was more in demand in this area.

Still another reason for this might be found in the difference in general prosperity, standard of life and administrative importance of the different regions concerned. For example, land was dearer in Kotivarsa visaya than in Pancanagarī viṣaya, though both belonged to the same province or bhukti of Puṇḍravardhana. This was undoubtedly due to the fact that, from the point of view both of administration

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1. Dāmodarpur C.P. No. 3. verse 5. E.I. vol. XV p.136.
2. A.M.S.J. vol. III part 2 page 483-484.
3. Select Ins. P. 351, f.n. 1 & 3 — prāksamudra maryāda (Custom in the countries bordering the Eastern sea.)
4. Ibid. page 355 line 13. page 358, line. 16.

and general prosperity, Koṭivarsa held a more important position than the other district and consequently land in this particular district was more in demand than in other districts.

It is not an easy task to ascertain the rate at which the price of land gradually increased. With the steady growth of population, the pressure upon land must have also increased considerably, thereby increasing the demand for land and raising its price.[1] Even so, this increase must have been effected very gradually, because the evidence of the Dāmodarpur and Faridpur copper plates shows that for more than a hundred years in the case of the former and about fifty years in the case of the latter, the price of land remained more or less stable in both the regions.

Another factor which cannot be satisfactorily explained is that everywhere the price of all varieties of land, waste (Khila), homestead (vāstu) and cultivable (Ksetra) is the same. It is natural that the price of vāstu land should have been higher than that of cultivable land and again the latter must have been dearer than waste land. But so far as the evidence from the above mentioned inscriptions goes, all types of land are classed under one uniform price. Thus, in the province of Pundravardhana, in the district (viṣaya) of Koṭivarṣa one Kulyavāpa of unsettled (apradā) and untilled (aprahata) land i.e. land not under cultivation, was sold at the rate of three dīnāras in 443-444 A.D.[2] During the same period, however, some Kulyavāpas

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1. Supra, pp 160 – 163.
2. No. 1 Dāmodarpur C.P. E.I. vol. XV p.130.

of cultivated land together with a building site (vāstunāsaha) were sold at the same prevalent rate of three dīnāras for each Kulyavāpa in the same district of Koṭivarṣa.[1] This is rather confusing. But a probable explanation can be found in the fact that as all of these lands were sold by the state with the ultimate object of donation to some pious cause by the purchaser, the Government charged a uniform rate from all. There must, however, have prevailed a different price in the case of the purchase of different grades of land for purposes other than charitable.

The price of land in terms of the modern rupee -

According to the evidence furnished by the Baigrām copper plate inscription, one dīnāra was equal in value to sixteen rūpakas in this eastern part of the Gupta empire.[2] But the actual value of money depends to a great extent upon its purchasing power. There is no doubt that the purchasing power of a rupee was much more a hundred years ago than what it is today. According to Moreland, a rupee had no less than seven times more purchasing power in Akbar's time (1556-1605 A.D.) than in 1912.[3] Since the last two world wars the value of the rupee has diminished enormously. Moreover the economic condition of the Gupta age as noticed by Fa-hsien[4], in his

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1. No. 4. Dāmodarpur C.P. E.I vol. XV p.138-139.
2. E.I. XXI page 78. It is clearly mentioned in lines 6 and 4 that one Kulyavāpu costs 2 dīnāras and 2 dronavāpas cost 8 rupakas. On this basis we can calculate the respective values of a dīnāra and a rupaka.

   8 dronavāpas = 1 Kulyavāpa - cost 2 dīnāras
   1 " = $\frac{1}{8}$ " " $\frac{1}{4}$ "
   2 " = $\frac{1}{4}$ " " $\frac{1}{2}$ " or 8 rūpaka

   Thus we find that 8 x 2 = 16 rupakas = 1 dīnāra.
3. India at the death of Akbar. p.56.
4. Legge - p.43.

dealings with the people of this region, who never saw any coin, but only cowries, suggests that the purchasing power of a Gupta rupee was even higher than that of an Akbari rupee. It thus seems probable that one Gupta rūpaka was equal in purchasing power to at least ten or more modern rupees at a moderate estimate. Therefore, the price of land in Pancanagarī viṣaya, in terms of the modern rupee would be Rs. 360 (2 x 160) per Kulyavāpa. In the district of Koṭivarṣa it would be Rs. 480 (3 x 160), while in Faridpur area it would be still higher i.e. Rs. 640 (4 x 160) per each Kulyavāpa of land. It is unfortunate that the prices given in these plates cannot be used for comparative purposes, but we cannot derive from them any secure indications as to the relative prosperity of this period as compared with others. We have no similar data for earlier times, nor for later periods before the Mughals. Moreover the area of the Kulyavāpa is uncertain though some attempts have been made to establish it. The purchasing power of gold in terms of other commodities is unknown for our period, and thus we cannot say how much wealth a Kulyavāpa of land represented in terms of basic human requirements such as paddy. Therefore we make no attempt to deduce any comparisons with later periods from our data.

There is no adequate evidence from which we can calculate the price of land current during the Pāla and Sena period. The Sena inscriptions, however, mention in minute detail the yearly income derived from the different plots of the donated land. The Govindapur copper plate

inscription of Lakṣmanasena mentions in clear terms that the annual income from one droṇa of land amounted to fifteen purāṇas and also gives the total income from a village consisting of 60 droṇas and 17 unmānas of land at this rate as 900 purāṇas.[1] Similarly, in the Calcutta Sāhitya Parisad copper plate of Viśvarūpasena, the income derived from the 336½ unmāna of donated land amounted to 500 purāṇas.[2] In his translation of the Idilpur copper plate inscription of Keśavasena, N. G. Majumdar interprets the income of two hundred coins from Talāpāḍa pāṭaka, belonging to the Puṇḍravardhanbhukti, to be the value of the land.[3] But he is obviously wrong here, because, as we know that one pāṭaka was equal to forty droṇavāpas, the yearly income alone, from the whole pāṭaka should have been six hundred purāṇas (40 x 15 = 600; according to the rate of 15 purāṇas for each droṇa as mentioned in the Govindapur copper plate of Lakṣmaṇasena.[4] This rate of yearly income, however, was not in force everywhere. Though the rate of yearly income certainly fluctuated according to price and time, the discrepancy is so great that it is evident that the price per pāṭaka would have been much higher than two hundred. Moreover, it seems improbable that of all the Sena land grants, only this one belonging to the reign of Keśavasena should have deviated from the usual procedure followed in the others and mentioned the price of land.

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1. I.B. page 96, lines 38-39.
2. Ibid. page 140.
3. Ibid. page 130.
4. Ibid. page 96.

Even if we take the two hundred coins to be the yearly income derived from one pāṭaka, the land must have been of a quite inferior quality.

From the above analysis it becomes clear that, compared to the fifth and sixth centuries A.D. the value of land had increased to a considerable extent during the Sena period. Thus, the price of one Kulyavāpa of land which equalled eight dronavāpa was three dīnāras. Again according to Nārada[1] and Bṛihaspati[2] 3 dīnāras amounted to 144 kārṣāpaṇas (which can be identified with the Purāṇas of later times), one dīnāra being equal to 48 kārṣāpaṇas. In other words, the price of one dronavāpa of land was eighteen purāṇas (144 ÷ 8) in the district of Koṭivarṣa during the fifth century A.D., whereas we know from the Govindapur copper plate of Lakṣmanasena[3] that the yearly income alone to the state from one drona of land amounted to as much as fifteen purāṇas (one fourth or sixth of the total income from the land). From the above it follows that, due to the growth of population and consequent pressure on land, and also debasement of coins, the price must also have registered a considerable rise during the later period.

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1. Nārada, Appendix 56-60 S.B.E. 33. pp.231-232.
2. Bṛihaspati VIII 9-10. S.B.E. 33 p.
3. I.B. page 96.

Demand for Land.

The demand for land increases everywhere in proportion to the corresponding increase in population. This is especially true in an agricultural country like Bengal. Here, with the law that each son gets an equal share of his father's property, fragmentation of land is a very common phenomenon. The result of this is that the pressure on land goes on increasing. And as each plot of land becomes smaller and smaller, it becomes more and more an uneconomic proposition. Another factor responsible for this increasing reliance on land may possibly be traced in the gradual decline of trade and commerce after the Gupta age in Bengal.

Though direct evidence is lacking, various inscriptions dating from the fifth century onwards lend indirect support to this view. Thus when, even a powerful vassal like Mahārāja Rudradatta[1] wished to donate 11 pāṭakas of land to a Buddhist congregation of monks established in a vihāra, he had to purchase them in five different plots from a village in Uttaramandala, apparently being unable to find a single plot of the required size for sale near the vihāra.

Again the Pāhārpur copper plate[2] shows that when Nāthaśarmān and his wife Rāmī donated 1½ Kulyavāpa of land to one Jaina, preceptor of Vaṭagohāli, they had to purchase them from four different villages, - Prsthimposaka, Gosatunjaka, Nityagohāli and Vaṭagohāli, though it would

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1. I.H.Q. - vol. VI p.45.
2. E.I. XX. P. 59.

have been certainly more convenient to have donated them in one single plot, preferably in Vaṭagohāli itself. Similarly we are told that the five Kulyavāpas of land sold by the Dāmodarpur copper plate No. 5[1] had also to be found in four different villages. All this evidence clearly points to the fact that nearly all good land in a village or district was occupied and often a person found it difficult to purchase land from one particular area even for donation. Sometimes he had no other alternative but to buy waste lands from the state for the purpose. It was particularly difficult to obtain a single large plot in any given village, especially if it was cultivable land. Often the state found it necessary to donate waste land for reclamation by clearing forests and filling up ditches and marshes, thus establishing new settlements in order to meet the increasing demand of an ever growing population. For example the Tippera copper plate grant of Lokanātha[2] (650 A.D.) records how a community of Brāhmanas were settled and given lands for cultivation within a forest region.

It is not difficult to trace this growing demand for land in the later period as well. The Dhullā copper plate of Śrīcandra[3] records the grant of 18 halas and 6 droṇas of land in Puṇḍravardhanabhukti to one Vyasagaṅgāśarma, but this had to be procured from five different villages in the following manner.

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1. E.I. vol. XV p.143.
2. Ibid. p.301.
3. I.B. p.165-166.

1. 4 halas from the village of Durvapatra.
2. 3 " " " " " Loniyājoḍaprstara.
3. 2 " " " " " Tivaravṛtti.
4. 2 " + 6 dronas from the " " Parkadimunda
5. 7 " from the " " Mulapatra.

The Chittagong copper plate of Dāmodara similarly records the grant of only 5 dronas of land, but that too was from two villages.[1] The 336½ unmānas of land granted to Halāyudha by Viśvarūpasena,[2] were divided in eleven separate plots and located in six different villages. Moreover the last-mentioned grant points specifically to the growing desire among men to become big landowners by acquiring large amounts of land in individual possession. Even a Brāhmana pandit like Halāyudha was not free from it. He was one of the predecessors of the great Brahmana Zamindars of later period in Bengal. He not only enjoyed the royal revenue, but also probably let individual peasants cultivate his lands in different plots and got a share of the produce as well. Still another indirect reference to this growing demand for land can possibly be found in the minuteness with which boundaries were specified in inscriptions of the later period. It seems that the state as well as the individual purchasers were well aware of the measurement and boundary marks of different plots of land purchased and donated by the copper-plates, though this feeling was perhaps not so pronounced in inscriptions prior to the 8th century.

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1. I.B. p.158.
2. I.B. p.140.

The State was very particular in seeing to it that it encroached upon nobody's rights and privileges when granting a particular piece of land or a village to the donee. The existence of a well-organised department for survey and measurement in the Sena period strengthens this view.[1] Besides, the ever-increasing fractions in the units of land measurement, found in later inscriptions, also suggest to this growing demand for land. The lowest unit of land-measurement mentioned in pre Pāla inscriptions is the ādhavapa or ādakavapa, whereas we find this further subdivided into unmānas and again the latter to kākinīs, in those belonging to the Senās and their contemporary kings and vassals. As land became more and more scarce, it was but natural that even the smallest fractions in measuring a certain plot of land received due attention both from the office of the Pustapālas (record keepers) as well as the purchaser and his neighbours.

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1. Supra, p. 71.

Ownership of Land

The ownership of land has been one of the most controversial topics of History. There have been various discussions on it both in and outside India. The different theories upheld by Indologists on the subject may be broadly grouped into three, according to whether they emphasise the claim of the community, the King or the peasant. * Support for all three of these views is not lacking in the pages of the Smṛti and Arthaśāstra literature of ancient and medieval times. V.A. Smith [1] and many others! such as Hopkins, [2] Bühler [3], Śāmasāstry [4] J.N. Samaddar [5] and Maity [6] express the view that soil was the property of the King. Maine [7] is the chief propounder of the view that agricultural land was owned and cultivated by men grouped in village communities. The theory of individual ownership has been advocated among others by Baden Powell, [8] K.P. Jayaswal [9] P. Niyogi [10]

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*. A summary of all the different theories on this point can be found in the "Report of the Indian Taxation enquiry Committee (1924-25) Vol.II app. IV.

1. Oxford History of India p. 90.
2. India, Old and New p. 223
3. S.B.E. XXV p. 259
4. Arthaś. tr. p. 144
5. Economic Condition of ancient India p. 168
6. Maity, op. cit. pp-11 cit. -
7. Village Communities in the east and the west. pp. 76, 163, 167, 113, 160.
8. Indian Village Community. pp. 2, 36, 98-139.
9. Hindu polity. —— p. 343
10. Economic History of N. India, — pp. 71 ff.

and P. N. Banerjee [1]

Again there are some who think that the Indian theory combines universal land lordism of the King and peasant proprietorship and that the agrarian system meant a sort of perpetual lease held on the annual performance of an obligation .[2]

But these different theories are of practically no importance for our purpose, in as much as no definite conclusions can be reached from them. So our primary concern will be to ascertain the real owner of the land (agricultural and non-agricultural) from the available evidence in the form mainly of land grants. For, whatever arguments might be advanced with regard to the theoretical ownership of land, these are of very little importance unless they are related to historical facts.

In most of the copper plates belonging to the Gupta period and found in Bengal, we find that the King or the state itself is selling the land and since it is being donated for religious purposes, the King is given one sixth of the religious merit accruing from the grant.

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1. Public Administration in Ancient India - p. 179
2. F.W. Thomas - Cambridge Hist. of India Vol. I p. 428 -

" Apart from the royal domains, which must have been considerable, the ultimate property in the land appertained, in the sense which has since prevailed, to the King; that is to say, the King was entitled to his revenues therefrom, and in default could replace the cultivator in the holding. This does not preclude alianation or sub-division by the occupier, the royal title persisting through each change. It was the Kings business to organise the agricultural productivity by encouraging the surplus population to settle new or abandoned tracts. Irrigation was an object of great solicitude and naturally under the charge of the state which regulated the supply of water and derived revenue therefrom".

In fact, in every case, the application for the purchase of land is made to the King through the local authorities .[1] The State's permission was specially necessary in these pious grants, for the King and the King alone had the power to exempt the lands from all kinds of royal dues. We are unable to assert the same thing in the case of secular land transactions, for we have no such sale deeds from our period. Over and above this, in one or two instances, the King himself donates the purchased land on behalf of the purchaser.[2] Again, sometimes, the King makes an endowment of land either on his own accord[3] or on the request of a member of the royal family or an important court official.[4] But in almost every case, the terms and conditions under which the land is transferred are similar and they expressly point to the fact that the grant was not liable to further alienation. "It therefore follows" says Ghosal,[5] " that in the oldest period to which the records in Bengal can be traced, the State was not only the owner of the unappropriated waste, but reserved its right to the same to such an extent as to exclude even the occupiers by right of purchase from the privilege of alienation."

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1. Supra, p. 79.
2. Ibid, p. 87.
3. Ibid.
4. Ibid.
5. U.N. Ghosal - Agrarian System in Ancient India p - 40.

Again the King's right over the forest regions advocated by the Arthaśāstra is definitely established in our period by the Tipperah grant of Lokanātha [1], which records an endowment in a forest region. Even when land was purchased from one private individual and donated to another, the permission of the state had to be obtained. Thus in the Faridpur inscription of Gopacandra [2], we find that the district officer of Vārakamaṇḍala Vatsapālaśvāmin, purchased one Kulyavāpa of land for the purpose of donating it to a Brahmana. Owing to the bad condition of the plate, it is not possible to read correctly all the lines, but most probably there is a reference to a person named Mahakoṭṭika, from whom the land was purchased. Thus we see that even when buying land in the possession of a private individual, one had to seek permission from the state.

Another point which can be advanced in support of royal ownership of land is that the King could confiscate or annul a grant and make a fresh endowment of it to a person different from the original donee. Thus though most of the inscriptions specifically state that the King has no right to confiscate land once granted by him or his predecessors, there are a few cases, in which the King reserves this right in certain circumstances. This is clear from at least two copper plate grants of our period – the Belwā copper plate of Mahīpāla [1] and the Saktipur copper plate

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1. E.I. vol. XV. p. 301.
2. Select Ins. p. 358. lines 10-11.
3. E.I. XXIX pp. 1 ff.

of Laksmaṇasena .[1] The first records the grant of a number of villages among which there was one named Osinna which had once been allotted to the Kaivarttas for their service. The second plate reveals that the grant was made in exchange for a plot of land which had previously been granted by Ballāla sena to a Brahmana . It appears that Laksmanasena by mistake gave away the land, which was already a gift made by his predecessor. When the truth was brought to his notice, he made a new gift.

From the above facts it is clear that the King had the power to confiscate or annul a grant made by him or his predecessor. He could also grant lands which were in private possession. Thus the Ashrāfpur copper plate, No. 1 [1.] records the grant to a Buddhist monastic establishment of a total area of 9 pāṭakas and 10 droṇas of land after they had been taken away from their different occupants. The second plate from Ashrāfpur [2.] also states clearly that the 6 pāṭakas and 10 droṇas of land donated to the Vihāra were taken away from their occupants. Most of these lands were in private possession. The first inscription individually mentions these former owners by name. It is not known whether any sort of compensation was given to these persons for their loss. Most probably they did not receive anything.

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1. E.I. XXI pp. 211 ff.
2. M.A.S.B. vol. I, No. 6 p. 85
3. Ibid.

For in that case one would expect this to have been mentioned in the documents. These facts raise the question whether, unless the King was considered the ultimate owner of the soil, he could legitimately dispossess the private citizens from their individual holdings. *

Many advocates of private ownership argue that the lands referred to in most of these inscriptions were Khila or waste lands. Evidence from them thus do not establish the fact that the King was master over agricultural lands as well. But we may point out that the three copper plates from Faridpur and most of the Pāla and Sena inscriptions, record the grant not merely of waste lands but of whole villages as well. These villages must have included in them settled vāstu and cultivable lands also. It is also difficult to think that all these villages were the Khās or personal property of the King. Thus S.K. Maity [1] rightly points out - "It is difficult to account for the King's power to grant rights over villages to religious bodies, unless it was implicitly believed

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* The Calcutta Sāhitya Pariṣad C.P. of Viśvarūpasena furnishes another example, for there we find that Halāyudha bought several plots of land at different periods from different persons. But when he wanted to enjoy them free of tax and royal dues, he had to apply to the King.

1. S.K. Maity - op. cit.- p. 16

that he was the ultimate owner of the land." There is no record of the donation of a whole village except by the King. This leaves no doubt that the King was the ultimate owner of the land.

Ownership has been defined as a quality of the object owned of being used according to the pleasure of the owner. Many writers of legal texts including Gautama [1] and Manu [2] of earlier times mention three attributes as being essential to ownership. These are sale, gift and mortgage. From medieval Bengal we can quote the authority of Jimūtavāhana the famous author of Dāyabhāga who defines it as the quality in the object owned of being used by the owner according to his pleasure - Yatheṣṭaviniogārhatvena Śāstrabo-dhitatvam. [3] But we know that even after the donation of the land, the King reserved certain prerogative rights over it. Though most of these lands were granted in perpetuity, yet the donees were not given the right of alienation in future. In other words, the lands granted did not possess the three essential attributes of ownership - sale, gift and mortgage. The conditions of nīvidharma apradā-dharma, akṣaya nīvidharma etc. mentioned in almost all the grants bear out the above fact. [4]

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1. Gautama, X, 39.
2. Manu, VIII, 199.
3. c.f. U.N. Ghoshal - Agrarian system in ancient India - p. 85 and fn. 21.
4. Supra - pp. 141 - 144.

All that the King transferred was the right of enjoyment of the taxes and dues, which normally went to the royal exchequer. The donee's right of possession of these lands should in no way be confused with the ultimate ownership of the King. It remained with the King and King only.

The Arthaśāstra attributes certain specific rights over the land in the country to the King; these include among others, rights over unoccupied waste, comprising both the cultivable and barren land. [1] This right of the King in our period is amply proved by the references of apradā, aprahata and khila found in connection with the lands granted from 5th to the 8th century. [2] Again the King's right over waterworks and rivers, as mentioned in the Arthaśāstra [3] can be borne out by the fact that when transferring the land to the donee the King is transferring his rights over these also. Most of the Kings of the Pāla and Sena dynasties are said to have constructed large irrigation works for the benefits of their subjects. The Bāngarh copper plate mentions that Rājyapāla constructed many huge tanks. [4] Again on the authority of the Rāmacarita, we are told that Rāmapāla erected several irrigation works and caused huge tanks to be established in different parts of his empire. [5]

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1. Arthaś. Text II. I.
2. Supra pp. 103-104.
3. Arthaś. Text II. I.
4. E.I. XIV p. 324.
5. R.C. III. verse 42. p - 108.

Traces of these big tanks established by different Pāla rulers at different times can still be found in the northern and eastern districts of Bengal. Among the Senas, Ballālasena's name was associated with a great embankment constructed at the confluence of the three rivers - Ganges, Jamunā and Sarasvatī.[1] This responsibility of the King for irrigation works also goes to prove his ownership of the soil.

The royal ownership is further substantiated from the King's enjoyment of various kinds of taxes and revenues such as bhāga bhoga kara, hiraṇya etc. enumerated in great length in most of the inscriptions.

From the above discussion, it is evident that the historical records at our disposal point conclusively to the fact that the King was looked upon for all practical purposes as the owner of the soil. He had absolute authority not only over the waste lands, but also over the settled areas. But he could not legitimately dispose of the lands single handed. In every case the alienation of land was an act which took place before the leading men of the village and the King had to inform not only the members of the royal family, court officials and chief business-men of the province and district, but also the village elders, artisans and sometimes even the common folk like ordinary peasants. This had led some scholars like Basak to think that the ownership of land rested not with the King but with people in general. He argues that if we assume that the lands belong to the State, "why could it not alienate them without the consent or approval of the people's representatives the Mahattaras and other business men

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1. Dhoyī, Pavanadūta - V. 33

(Vyvahārins) of the province and district, and sometimes even the common folk? Why is it that the Government did not take upon itself the whole responsibility of transferring to others by sale hitherto unassessed untilled Khās land?" [1]. One way of answering this question he believes is that these lands belonged not to the state but to the whole village or village assemblies and hence their transfer could not take place without the consent or approval of the latter. He further points out that, as found in the Dāmodarpur copper plate No. 1. [2]. only $\frac{1}{6}$ of the proceeds of the transaction went to the state. The rest and the major portion went to the funds of the village assemblies. In his opinion, all these facts definitely prove that land in ancient Bengal was owned by the people grouped in village communities. The King could claim only a part of the revenue as his fee for the protection given to the subjects.

We, however, propose to refute his arguments one by one. Firstly, it should be noted that neither the state officials nor the village elders could sell lands singly, but the presence of both were necessary for their disposal. The local people were informed and the final demarcation was performed in their presence, not because they were the masters of the land, but because being residents in the locality, they were in a better position to know the details of the land to be transferred from the state to another person or from one individual to another. They were also expected to know the title, boundaries

1. A.M.S.J. III pt. II., pp. 486-87.
2. E.I. XV p. 130.

etc. of the land in question. The arrival of a new person in their village or locality, could not have remained beyond their knowledge. It was a matter which concerned the whole village. Moreover in future disputes, their evidence always played an important part in reaching the final decision. In this connection, mention may be made of the phrase matamastu bhavatām which in our opinion should not be taken in its literal sense to mean - (let) Your honours permit, but rather as a courteous address to the distinguished citizens of the locality. Some scholars think that this phrase refers vaguely to the remote period, when the village communities were the real masters of the land. But by our period its implication was probably merely conventional as is perfectly clear from later inscriptions, wherein the term is replaced by viditam astu bhavatām, (let) Your honours be informed. The phrase had become just a formal way of informing the persons mentioned that a piece of land or a village in their locality was to be transferred from the possession of one person to that of another.

Moreover, Basak ignores the fact that the inscriptions mention that the matter was referred to these local people only after the record keeper's department had thoroughly examined the relevant documents in this connection and given their consent.

Again Basak's interpretation of dharmaṣaḍbhāga as $\frac{1}{6}$ of the price of land is very doubtful. In our opinion it refers to the religious merit accruing out of the donation and not to the actual proceeds of the trans-action.

From the above discussion, it is clear enough that at least in our period and in our region, the fact that the King was the ultimate owner of all the land in the country had been established beyond any doubt. Perhaps in earlier periods, when there was less pressure on land, the question of ownership was not very important. As in the rest of India, Manu's maxim that the "field belongs to him who cleared away the weeds and a deer belongs to him who first wounded it", [1] possibly applied to lands in Bengal also. But in later years, owing to the rapid advance of settled agricultural life, a more stable form of ownership of the soil was needed. This gave rise to the framing of definite rules and regulations governing the ownership of land. These regulations duly safeguarded the interests of the occupant against possible eviction or confiscation. To enforce these laws and regulations and to punish the wrong-doers, a strong centralised government was an absolute necessity. Thus the royal power evolved and the King, as the protector of all, also came to be looked upon as the ultimate owner of the soil, although the individual cultivators continued to enjoy the fruits of their individual fields. The impact of this political, social and economic change came to be felt keenly in Bengal during the period of Gupta imperialism, but definitely reached its climax under the Pālas and Senas. The grandiloquent titles and the great exploits of these kings, as found in the epigraphic and literary sources, though not always indicative of their real strength, no doubt suggest that by the 8th century the King's

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1. Manu, IX, 44.

authority had been firmly established in all branches of administration and he was regarded as the final authority in matters of land. Thus in the words of Professor Basham, "most of the villagers were free peasants and their land was to all intents and purposes their own, though the King claimed its ultimate ownership" [1].

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1. A.L. Basham, op cit, p. 110.

Chapter IV

CRAFTS AND INDUSTRIES

Agriculture was the basis of the economy of Bengal. In addition, however, a number of crafts and industries were known to have been practiced from a very early period and these played an important part in the life of the people. Many of these works were noted for their exquisite craftsmanship and their fame often travelled far beyond the borders of Bengal. Her spinners and weavers could produce semi-transparent silks and muslins which were much prized in the outside world, particularly in the courts of Imperial Rome. Much of the work of the individual craftsman, was, however, sold at the door of his workshop direct to the purchaser. Normally each craft or trade was concentrated in a separate street or area of a village or town where the craftsman had his workshop, stall or home. Generally speaking, the practice and technique of a particular trade or craft were confined to a number of families or guilds. A young apprentice was brought up in the actual workshop of his master, who may have been his own father. The proficiency thus acquired was transmitted from generation to generation in the same way. The tools and implements used at that time for these arts and crafts, were surely not suited for large-scale production in the modern sense of the term. Yet large quantities of muslins which Bengal supplied to different parts of the world suggest that at least in the branch of textile industry some kind of large-scale production for a wide market was not altogether unknown. Most of the crafts and industries were, however, the work

of individual craftsmen working on a cottage industry basis.

In view of the scanty materials at our disposal, an exhaustive list of the different crafts and industries practised in our period cannot be given. Yet, from the scattered references in foreign accounts as well as in literary and epigraphic sources, we can, at least mention some important ones such as:- textile, sugar, salt, pottery, metal-work, stone-work, ivory-carving etc.

Textiles

The history of the textile manufacture in Bengal goes back to very early times. It undoubtedly represented the major industry of the country and, as far as the available evidence allows us to infer, a large proportion, perhaps the majority of the industrial population, was engaged in this branch of economy. This is clearly borne out by the numerous references found in indigenous as well as foreign sources. Kauṭilya's Arthaśāstra contains the first clear reference to the different textiles produced in Vaṅga and Puṇḍra[1]. It mentions four varieties produced in these areas - kṣauma, dukūla, patroṇa and kārpāsika. Kṣauma was produced mainly in Puṇḍravardhana and the term is explained by Kṣīrasvāmin as a textile made of the fibre of kṣauma or atasi, corresponding to modern flax, hemp or linseed.[2]

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1. Arthaś tr. II. 11. 120-115. pp.119-120.
2. Amara II. 6. 113; II. 9. 20.

It was probably a coarse variety of linen with some mixture of cotton in it. A finer and softer variety than the one just mentioned was the dukūla, Kauṭilya also refers to the three localities which specialised in manufacturing three different varieties of this particular textile and their distinctive qualities.[1] The first was produced in Vaṅga and was white and soft; the second, produced in Puṇḍra was black and as soft as the surface of a gem; while the third, manufactured in Suvarṇakudya in Kāmarūpa had the colour of the rising sun. Patrorna appears to be wild silk. Amarakośa defines it as 'bleached or white kauśeya'[2] while in the opinion of the commentator it was a fibre produced by the saliva of a worm bred and reared on the leaves of certain trees.[3] The term kārpāsika derived from the Sanskrit kārpāsa certainly meant cotton fabrics, and though large quantities were manufactured in different parts of India, Vaṅga was specially noted for them. The term gossypium, which used to denote in Strabo's time all fine varieties of cloth then manufactured, whether of cotton, flax or other fibres, was possibly derived from this word,[4] or it might have originated from 'Kaṛpassia', the area where the finest kinds of muslin were manufactured and which was the principal centre of this industry in early times. This part of the Dacca district, still

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1. Arthaś. tr. II. 11. 102. p.119.
2. Amara II. 6. 3; II. 6. 14.
3. Ibid.
4. McCrindle - Ancient India as described in classical literature, p.26. fn. 1.

known by the same name, which is now covered with thick forests, abounds with the dry beds of tanks etc. This proves that at one period it was the centre of a dense and busy population.[1]

The reputation which Bengal had attained as a centre of textile manufacture as early as the time of the Arthaśāstra, continued to prevail throughout the following times with considerable success. Dacca muslin, in particular, was celebrated for its transparency, beauty and extremely fine texture. It was made of indigenous cotton. The Rāmacarita mentions 'costly garments of fine texture'[2]. It is also often referred to in other literary sources of the time.[3] Mānosollāsa of Someśvara (A.D. 1124-1138) refers to Varigadeśa as one of the important centres of textile manufacture.[4] Many sculptural representations of our own, as well as of earlier periods, are shown to be wearing semi-transparent clothes. Muslins of Bengal were well known in the markets of ancient Greece and Rome. The Greeks called it Gangetica, because it was manufactured in the Gangetic delta. They considered it as the best of all fabrics.[5] According to some writers the 'serica Vestes' which were so highly prized by the ladies of Imperial Rome, were in fact garments made of Bengal muslins.[5]

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1. J. Taylor - op. cit. - pp.161 ff.
2. R.C. III. Verses 35-36.
3. D. C. Sen. - Purva Vanga Gitikā - Vol. II pt. II pp. 214-215, 225, 226.
4. Someśvara - Mānosollāsa ed. G. K. Śrīgondekar. Vol. II p.88.
5. J. Taylor - op. cit. p.162.

Muslin formed undoubtedly one of the costliest items of luxury for the ladies of Imperial Rome even at the pinnacle of her fame and prosperity. It may also be noted that the Periplus of the Erythrean Sea, written in the first century A.D. includes 'muslins of the finest sorts' among the exports of Bengal.[1] Some Arab writers who visited India after the ninth century A.D. also mention this fine fabric in their accounts. Thus referring to the King of Ruhmi, the Arab merchant Sulaiman wrote "It is said that in his army, the number of men engaged in fulling and washing clothes is no less than ten to fifteen thousand. In these countries tissues are manufactured which are not found elsewhere. A dress made with this tissue could pass through a sealing ring, because the tissue is so light and fine. This tissue is of cotton and we have seen a sample of it."[2]

The identification of the Kingdom of Ruhmi is a debatable point. Ferrand identifies it with Pegu, but unfortunately does not give any arguments in support of his view.[3] On the other hand, there are certain good reasons why it should be identified with Bengal. For example, the use of cowries for money, the extremely fine fabrics and the existence of rhinoceros in the country would suggest its identification with Bengal.[4] Another Arab writer, Ibn Khardazbeh (10th century A.D.),

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1. Periplus p.47.
2. Ferrand. I. pp. 37-38.
3. Ibid. p.23.
4. Proceedings of Pakistan History Conference 1951;
   Elliot and Dowson vol. I. app. p.361;
   S. H. Hodivala - Studies in Indo-Muslim History vol. I pp.4 ff.

who had attained high office under the Khaliphs and employed his leisure hours in topographical and geographical researches, also mentions cotton fabrics as one of the products of Ruhmi.[1] Masudi also remarks about the fineness and delicacy of the muslin manufactured in Rahma or Ruhmi.[2] The testimony of Marco Polo, who visited India in the thirteenth century, proves that Bengal continued to enjoy this prominence in the profitable trade of cotton goods.[3] Among Chinese writers Chao-Ju Kua[4] and Mahuan[5] list cotton goods as one of the important manufactures of Bengal. The Mughal Empress Nurjahan greatly encouraged the muslin industry, which flourished considerably under her patronage. She made muslin popular among the members of her court, who prized it very much. These were so exquisitely delicate in texture that from then onwards some varieties were styled in the figurative as abroān (running water) and sabnam (night dew). It is said that one day Princess Zebunnisa appeared before her father Emperor Aurangzeb, wearing a dress made of abroān muslin. The Emperor scolded her for appearing unclothed before him; so fine was the dress that though it was draped seven times round her, it was quite unnoticable.

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1. Elliot and Dowson, Vol. I. pp. 13-14.
2. Ferrand I p.95.
3. Marco Polo, p. II. 115.
4. Chao Ju Kua - ed. F. Hirth and W. W. Rockhill p.97.
5. J.R.A.S. 1895. pp. 531-532.

Even as late as 1836, Dr. Ure writes "yarn continues to be spun and muslins to be manufactured at Dacca, to which European ingenuity can afford no parallel, such indeed as had led a competent judge to say, it is beyond his conception how this yarn greatly finer than the highest number made in England can be spun by the distaff and spindle or woven afterwards by any machinery."[1] Dr. Forbes Watson again writes: "with all our machinery and wonderous appliances, we have hitherto been unable to produce a fabric which for fineness and utility can equal the 'woven air' of Dacca."[2]

The finest variety of muslin was made of indigenous cotton. We have a reference to its cultivation in an inscription of Vijayasena, in the early Caryāpadas and in the account of Marco Polo.[3]

The cotton was cleaned by women, who also spun it. The two instruments used for separating the cotton from seeds are known as carkā and dullun kāṭhi. The first is a common handmill or pair of fluted cylinders, which is now generally used to clean cotton for second grade thread. The dullun kāṭhi is used to clean small quantities of the material for the finest quality of thread. It is simply an iron pin that is rolled upon a flat board, upon which cotton is laid. It is made a little thicker in the middle than at the two ends,

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1. Dr. Ure - Cotton manufactures of Britain, Quoted from J. Taylor. op.cit. P/64
2. Quoted from P. C. Roy - Poverty problem in India pp. 88-89.
3. Supra p. 65.

which project beyond the sides of the board, so that it can be worked and rolled by hand or foot. The dullun kāthi is said to crush the fibre less than the mill. The next step is to tease the cotton in order to separate it from the remains of the husks. This is done by means of a small bow made of bamboo, with a strong catgut or moonga silk. The cotton used for the finest thread undergoes a carding before it is teased or bowed. The instrument used for this purpose is the dried jaw bone of the boāl fish (Silurus Boalis). This part forms an arch about two inches in diameter and presents on its inner surface a great number of very fine carved teeth. It is used in the manner of a comb and allows only the finest fibres of cotton to pass through it. After this process of carding the cotton is reduced to a state of downy fleece by means of a bow. It is then carefully spread out upon the smooth surface of the dried skin of the chital (cucia) fish. This is next rolled up into a small cylindrical case, which is held in the hand during the process of spinning.

The thread is spun mostly by women under thirty in their leisure hours. The coarser kinds are spun by a charkā or wheel, whereas the tukwa or spindle is used for the finer sorts. The latter is usually made of fine polished hard metal and is about ten inches in length. It looks like a large needle with a small ball of clay attached to it, about an inch from the bottom.[1] It is held in an

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1. A large number of terracotta spindle whorls have been found from the ruins at Bāngarh. K. G. Goshwami - op. cit. p.37.

inclined position, with its point resting upon the hollow surface of a broken cowrie shell or a piece of turtle's egg imbedded in a small mass of clay, serving as a stand for it. It is revolved between the fingers and the thumb, while the cotton which is held in the left hand is gradually raised from it and the filaments as they are drawn out are formed into thread. The best spinners are women from eighteen to thirty years of age. They usually work during early morning and late afternoon, when the light is less dazzling to the eyes and there is moisture in the air to prevent the thread from breaking.

The weaver generally plies his business under the roof of his own dwelling or under a roof raised for the purpose. The total number of implements used in converting raw cotton into thread and weaving it into the finest muslin is said to amount to one hundred and twenty-six. The thread is dressed with starch and after it has been dried in the sun, is wound off upon two small wheels, which are held by the weaver, one in each hand as he forms the warp.[1] This latter operation is done between four bamboo stakes driven into the ground. An instrument like a comb is used to separate the threads on the warp, every alternate thread of which passes through a corresponding loop or ring of a thread chain which is connected with the gear above

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1. J. Taylor. op. cit. pp.167 ff.

and the treadles below. There are two of these chains of thread loops which are attached one to each treadle and by means of which the threads of the warp are alternately raised and depressed to allow the shuttle to pass between them. The most suitable time for weaving fine muslins is during the rains, for the moist atmosphere prevents the delicate thread from breaking. In dry hot weather, the weaver used to place some shallow vessels of water beneath the loom and the moisture from them kept the warp moist and helped the weaver in his task.

Muslins were made of various designs. Besides plain white ones, flowered, spotted and chequered varieties were also manufactured in large quantities. These different varieties were distinguished by different artistic names denoting their special qualities. The literary sources of a period a little later, abound with their description.[1] In Mughal times embroidered muslin made of a mixture of silk and cotton threads came to be known as kāsidā. The finest and the most expensive variety of the fabric with excellent embroidery and workmanship was known as jāmdāni and this is still applied to the best varieties of Dacca sarees found in the market. The finest varieties of muslins were very expensive and they were mostly manufactured for the members of the court or exported to foreign countries. Coarse cotton cloth for ordinary people must also have been produced and in literary sources they are referred to as khuān, khaumi or khami.[2]

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1. T. C. Das-Gupta - op. cit. pp. 268 ff.
2. Ibid.

Jute though perhaps not cultivated as extensively as in modern times, must also have supplied some raw material for the textile industry. Although the term patta-vastra denotes silk fabrics in general, the names of different sāḍis as found in late medieval Bengali literature - kāla pāṭ sāḍi, agun pāt sāḍi, kāncā pāt sāḍi etc., suggest that jute fibres were also utilised in the manufacture of certain varieties of textiles.[1] Woollen blankets formed one of the articles of luxury and there are some references to it in the Candī and Manasāmaṅgal Kāvyas[2].

There is very little reference to the art of dyeing in Bengal in our period. But as in other parts of India, this industry must also have existed in Bengal. The Dvyāśrayakavya of Hemacandra mentions saffron coloured cloth (Kausambhia), red cloth (lauhitaka) and black muslin or silk (Kālakāmśuka).[3] According to the commentary, the lauhitaka was dyed in madder or any colour equivalent to its shade. He further states that linen pieces were often dyed in terracotta red, indigo, and other colours, which were sometimes fumigated with camphor.[4]

According to Someśvara(1124-1138), the western Chālukya king, textiles were dyed in different colours of red, yellow, green, indigo

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1. D. C. Sen. Purva Vaṅga Gītikā vol. II. pt. II pp. 225-226.
2. Ibid.
3. Dvyāśrayakāvya - ed. A. V. Kathavati XVIII. 34; XIX 73; XV 71.
4. Cf. Journal of the Indian Textile Industry No. 5, 1966. pp.15 ff.

or in multicoloured lines.[1] The dyer was known as niranjaka or rajaka[2]. In our period, indigo was most probably the basic colour for dyeing cloth. Marco Polo describes in detail the process by which indigo was produced from this plant.[3] Besides this, safflower was also a popular dye and even now, on many a festive occasions, Bengali women love to dye their garments with the dried stems of this flower.

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1. Mānosollāsa II. p.89.
2. Abhidhānacintamani III. 914.
3. H. Yule - The book of Ser Marco Polo 3rd ed. Vol. II. p.375.

Sugar

Another important industry of our period was sugar. As has been pointed out earlier, sugar cane was extensively cultivated in the northern part of the country from a very early period.[1] It was a common crop and its juice a popular object of consumption. The importance of the crop in the economy of the country must have been appreciated for we have numerous references to the variety known as paundraka grown in the north of Bengal. The classical author Aelian speaks of a kind of honey extracted from reeds which grew among the Prasioi.[2] Another Greek writer Lucan, writes that the Indians near the Ganges used to quaff sweet juices from tender reeds.[3] Caraka mentions paundraka in the list of different varieties of sugarcane cultivated during his time.[4] In the Amara Kośa[5] and Suśruta[6] we find similar references, and most commentators of Sanskrit lexicons agree that the variety known as paundraka was named after the country where it was cultivated i.e. Pundra. The Rāmacarita also refers to the cultivation of sugarcane in Varendrī.[7]

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1. Supra., p. 59.
2. McCrindle - Ancient India as described in classical literature, p 122. f n. 3.
3. Ibid.
4. J.B.O.R.S. Vol. iv. p. 437.
5. Amara II. 4. 163.
6. Sutra 45. 138-48.
7. R.C. III. verse 17.

In Sanskrit Gauḍa is the name of a division of Bengal. Pāṇini derives it from the word guḍa (molasses).[1] It is in the fitness of things that Bengal, famous for the cultivation of sugarcane, should have one of its divisions named after this important product.[2] It is also likely that the vernacular names such as paunḍiā, pāunḍā, puṇḍi etc. used to denote a well known variety of sugarcane now grown all over the sub-continent, is derived from the term puṇḍraka[3].

All these facts point to the conclusion that certain varieties of sugarcane were carefully cultivated in Bengal from early times and most probably, besides internal consumption in the form of juice, it had enough surplus to manufacture sugar and guḍa from it. A poem in the Suduktikarṇāmṛta, mentions a sugarcane-press and the sweet smell of newly made molasses in connection with the picture of a happy village after the autumn harvest.[4] The fact that Bengal derived considerable profit from manufacturing and exporting sugar to other parts of India, can be proved by two other references of later times. Thus in the thirteenth century Marco Polo noticed it to be one of the important commodities of export from Bengal.[5] Again early in the sixteenth century the Portuguese traveller Barbosa found Bengal competing with

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1. Pāṇini IV. 2. 100
2. C.F., L. Gopal - "Sugar making in Ancient India", article published in J.E.S.S.O. VII. Pt.1. p. 63
3. Cf. J.B.O.R.S. IV. p. 437
4. S.K.M. 2. 136. 5.
5. Marco Polo. II. 115

South India in the supply of sugar to different parts of India, Ceylon, Arabia and Persia.[1] Though these references belong to a period later than ours, the conditions mentioned therein, must have prevailed from earlier times and therefore applicable to the period under survey.

The technique of manufacturing sugar is explained in detail in the medical works of Caraka and Susruta.[2] The former states that Ksudra guda is made by evaporating the juice of sugarcane down to a quarter, a third or a half of the original quantity. Guda is a purified product after the impurities are removed from the mixture. Even more refined are matsyandika, khanda and sarkara, each of which is purer and more refined than the preceeding one. He also states that the medical properties of these four types, which are in fact the four stages in the manufacture of granulated sugar.[3] Susruta mentions phanita, guda, matsyandika, khanda and sarkara in the list of preparations from cane juice.[4] We do not know how the ancient Bengalis clarified cane juice or refined sugar. Very likely the method was much the same as obtained now in Bengal and elsewhere. Usually boiling juice is clarified by skimming off the scum which rises to the surface. The sugar-boilers of Bengal who are professional men, do sometimes add milk, but only on special occasions. The next process adopted relates to the conversion of guda into inferior or superior grades of sugar.[5]

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1. The book of durate Barbosa (Hakluyt Society, London) II.112,146
2. J.B.O.R.S. IV pp 439-440.
3. Ibid.
4. Ibid.
5. Ibid. p. 441 IV. p. 441

The art of making molasses or sugar from sugarcane was applied to sweet juices derived from such other objects as madhuka flower, date and palm trees. Madhuka is the bassia tree or the mahua of the vernacular. That the juice from its flower was recognised as very sweet and that it was utilised for making sugar would appear from the term Guḍa-puspa mentioned in the Amara,[1] and its synonim. The copper-plate grants of our period, also abound with references to madhuka (samramadhuka···) in connection with the rights transferred with the land to the donee.[2] From this it is reasonable to infer that, in our period it was considered as a source of income as sugar or intoxicating drinks were made from it. Such sugar, as far as we know is not made nowadays. But we know that the sweet juice derived from date and palm trees is still very popular in Bengal and large amounts of molasses and sugar are yearly made from it. J.C. Roy holds the date of palm sugar industry of Bengal to be comparatively recent. The method of tapping of date or palm tree originated in the Deccan and spread into Bengal later through low class Hindus.[3]

Salt

Along with sugar, salt was manufactured in certain areas of ancient Bengal. Some inscriptions mention the grant of villages with salt.[4]

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1. Amara. II. 4. 27-28.
2. GL.M. pp. 33, 55, 91.
3. J.B.O.R.S. IV p. 454.
4. Irdā c.p. of Nayapāladeva E.I. XXII. p. 155; Rāmpāl c.p. of Śrīcandra, I.B. p. 5; Belāvā c.p. of Bhojavarman, I.B. p. 21.

This suggests that the manufacture of salt, though perhaps on a limited scale, was known and practiced in parts of Bengal. The Amarakośa mentions two types of salt - one from sea water and the other from rock[1]. It was usually manufactured by means of evaporation from infilterated sea-water or from sub-soil brine. The Irdā plate of the Kāmboja King Nayapāladeva refers to the grant of a village known as Vṛhatchattivanna within the Dandabhukti maṇḍala of Vardhāmana bhukti, with lavanākāraḥ[2]. Ākaraḥ literally means mine, but it is, however, very doubtful whether this region which corresponds to the modern Medinipur district in West Bengal had any salt mines. The area is near the sea-coast and the people living there still practice the manufacture of salt by holding infilterated sea water in large pits which is afterwards evaporated into salt.[3] So the term lavanākaraḥ in the above inscription should be interpreted as salt pits and not salt mines. The Chittagong copper-plate inscription of Dāmodaradeva mentions that the southern limit of the donated village of Dambaragrāma was marked by one Lavanotsavāsramavāti.[4] N. Roy suggests that this name possibly had its origin in some annual festival connected with the manufacture of salt.[5] This is quite likely, for salt must have formed one of the chief products of this coastal district of Chittagong.

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1. Amara. IX. 41.42.
2. E.I. XXII p.155.
3. Cf. B.I. p. 168.
4. I.B. p. 161.
5. B.I. p. 171.

There is probably another reference to salt-pits in the Dhulla copper-plate of Śrīcandra.[1] These references in the inscriptions prove that some quantity of salt was produced in the coastal districts of Bengal, though the total requirements of the country could not possibly have been met from this. A large part must have been imported from other parts of the subcontinent. Kauṭilya lists salts as one of the monopolies of the state.[2] But strangely enough, none of the Pāla or Sena land grants mentions salt among the rights and privileges transferred with the land to the donee. It is therefore permissable to infer that "although the manufacture of salt was known and practiced at certain places, at any rate from the 10th century onwards, it had not developed into a considerable industry".[3] It was perhaps also not considered as a state monopoly in our period. Two factors might have limited salt manufacture on a large scale. First, the damp climate of Bengal may have made the storage problem an acute one. Second, the large amount of fresh water discharged into the sea by the Ganges and the Brahmaputra might have also prevented the growth of salt-industry on a large scale basis.

Pottery

Among other crafts, pottery appears to have been practised on an extensive scale. The mention of Kumbhakāras (potters) in the Kāmauli copper-plate of Vaidyadeva,[4] and in the Ballālacarita[5] and of a

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1. IB. 166.
2. Arthaś'.tr. 2.12. 28-34. p. 125
3. H.B. p.656
4. G.L.M. p.135
5. Ballālacarita - Ed. MM. H.Śāstri. Ch.XXIII

Kumbhakāra-garta (potter's ditch) in the Nidhānpur copper plate [1] seems to indicate that pottery as an industry was important in Bengal. Next to metal it was the most essential manufacture of every-day life and quite a number of people must have earned their living from this craft. The ruins at Pandu Rajas dhipi in West Bengal has shown that this art was known and practised in Bengal as far back as the second millenium B.C. [2]. Besides this, a large number of pots of different shape and size and belonging to different periods have been recovered from excavations at Pāhārpur[3], Bāngarh[4], Mahāsthān[5], Maināmati[6] and other sites of ancient Bengal. It is, however, strange that no complete vessel could be unearthed from the earliest strata of the Pāhārpur ruins. Generally, the pottery found at Pāhārpur is well-burnt to a red or buff-green, on which red slip was applied either in bands or on the entire surface except the bottom. A large number of vessels with narrow neck and mouth and cylindrical or curved body are probably to be taken as ink pots (Pl. II. a) Some of these have a mouth aperture, from $\frac{1}{4}$" to $\frac{3}{4}$" in diameter and have incised linear or floral decoration on the body. A large number of hand made miniature vessels finished with a red slip have rounded bottom. Spouted vases or toṭās (Pl. II. b. d.) are also known and there are also vessels with curvilinear body with a sharply turning bottom. Two vessels with a number of holes in rows were probably used for

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1. Kāmārupa Sāsanābali p. 26.
2. P.C. Das Gupta, Excavations at Pāndu Rājār Dhipi (1964) pp. 11. ff.
3. M.A.S.I. 55. pp. 76 ff.
4. K.G. Goshwami - Excavations at Bāngarh pp- 26 ff.
5. A.S.I R. 15. pp. 104 ff.
6. F.A. Khan, Maināmati -pp. 34. ff.

keeping fire (pl. II . c). Besides these, a number of cooking pots of a similar shape as the modern ones, (pl.II.g,h,i.) and spouted vases with long necks have been discovered from Pāhārpur. A number of lids of pottery, dishes and saucers have been found. Long cylindrical lamp stands with a rim at the bottom are a noteworthy type (pl. II . e .). Lamps include a large variety of circular shell vessels with or without a projection at the rim near the wick. (pl. II . f.).

At Bāngarh, two fragments of very highly polished pottery typical of the Maurya period have been found from the lowest stratum. Otherwise the pottery objects found here do not show any remarkable departure in shape and size from those found at Pāhārpur.

The pottery found at Maināmati is characterised by its whitish and pale red colour, medium thick texture, soft and under baked fabric. The majority of the vessels shows traces of red slip on them. The main types consists of shallow cooking pots with incised decorations at the bottom. The designs consist of a variety of herring-bone and criss-cross patterns. Among other shapes, vases, water pitchers, spouted lotas and sprinklers should be mentioned. These are often decorated with incised or relief patterns, predominantly represented by the lotus flower. Shallow dishes, bowls and oil lamps with saucer like bodies but without lips are also found in large numbers. Most of the lamps are fitted with long ornamental stands. There is, however, a marked difference in fabric and decoration of the pottery from the upper most stratum of the ruins, where it is largely replaced by a fine-textured type of grey pottery. This form includes

globular cooking pots, cups and bowls with deep bodies and vases with long ornamental necks.

The potters' art is also exemplified by the immense variety of terracotta figures, plaques, toys, beads etc. discovered at Pāhārpur, Bōngarh and Maināmati.[1] In the modest medium of clay, these gifted clay-modellers created things of real beauty and satisfied a popular demand in the cheapest possible way. The facility with which terracotta work could be manufactured locally at short notice, while stone had to be obtained from distant Rajmahal hills with considerable difficulties, probably explains why Bengal excelled in this branch of art. It is evident that this folk art must have existed in ancient Bengal since a long period, but for the first time it is at Pāhārpur that it could assert itself against the hieratic art of the early periods and of the upper classes. The terracotta plaques decorating the faces of the walls of the shrines at Pāhārpur and Maināmati provide an interesting study of this popular folk art of ancient Bengal. Although the terracotta artists cannot lay claim to any technical perfection, no one can deny they had very keen observation of nature in its widest sense. Made of such cheap and common material as clay, these artists achieved something unique in depicting some aspects of every-day life. The richness, variety and exuberence of the subject matter represented by the terracotta

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1. For further details on the terracotta art see, P.C. Das Gupta - Origin and evolution of Indian clay sculpture. Calcutta 1961; S. Hussain - The terracotta plaques from Pāhārpur, J.A.S.P VIII pt. 2. pp 6ff; S. Kramrisch - Indian terracottas; M.A.S.I. No-55.

artists is overwhelming. (pl III. a, b, c.). These artists were fully responsive to their environments and excelled in reproducing every conceivable picturesque subject, which the world of man and beast, nature and fiction brought within the compass of their fancy and observation. Terracotta representation of Gods and Godesses, though found in very small numbers, undoubtedly served the interest of the poorer section of the society who could not afford to buy expensive statues of metal and stone. On festive occasions these terracotta figures and especially toys were in great demand and though the markets are now flooded with toys of various kinds made in and also exported from outside Bengal, these are still in great demand on special melās held on Hindu and Muslim festivals. Terracotta birds, animals, rattles, marbles, carts, chariots, dolls etc. have been discovered in large numbers from the excavations at the sites mentioned above. Terracotta spindle whorls and flesh-rubber have also been found at Bāngarh. Besides, a number of terracotta seals and medallions are found.

Another common antiquity connected with these terracotta objects is bead. Though they were made of various materials such as cornetian, quarts, agate, jade etc.,[1] terracotta beads are most common. They were undoubtedly used for decoration of the person of the poorer class of people. Some big ones were probably used as net-sinkers or spindle whorls. Beads were of different shapes. Those found at Pāhārpur were mostly cylindrical and double convex shape[2], whereas those found at Bāngarh were globular, plano-convex and barrel shaped[3].

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1. K.G. Goshwami - op. cit. - p.14.
2. M.A.SI. 55. p. 75.
3. K.G. Goshwami - op. cit. p - 14.

From the above, it can be concluded that terracotta definitely provided living for quite a large number of people and this art thus had an important place in the economic life of the country as a whole.

The art of manufacturing bricks was also known in ancient Bengal. Baked bricks were manufactured from clay and we have ample evidence of them from every excavation. These were decorated with many patterns - lotus petal, either simple or interlaced, the chess board, wavy and straight linear ornamentation etc.[1] The size of bricks varies from site to site and most probably there was no recognised standard for brick, as there is at the present day. For example, of the many ornamental bricks discovered at Pāhārpur, one measures 4' 2" x 3' 6", while another only 3" x 3".[2] The shrines at Pāhārpur and Maināmati were built stage by stage in different periods and often bricks of demolished older buildings were used in the construction of the new one. These were often ornamented with intricate floral or geometrical designs on them. (Pl. IV. a, b.).

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1. M.A.S.I. 55. P. 78.

2. Ibid. P. 79.

Metal

Along with pottery Bengal manufactured different varieties of metal articles and jewellery. These may be classified under four heads,

a. articles of jewellery and utensils,

b. weapons and armaments

c. metal images

and d. agricultural implements.

Jewellery provided occupation to a considerable group of metal workers. Their craft was a highly specialised one and as it was the fashion of the rich to use gold and silver dishes, and ornaments made of precious metals, pearls and stones for personal adornment, the jewellers usually had their workshop in the rich localities and towns. Jewellery, in those days, as even now, also formed part of one's saving. S.K. Maity has pointed out that as there were very few safe and productive sources of investment in those days, from the point of view of ancient economists, jewellery was considered as one of the important means of saving. The women, in particular, had the habit of investing a considerable part of the family's savings in jewellery for future emergencies. The hardships of the laws of inheritence by which a widow was for a long time not recognised as an heir to her deceased husband's immovable property were considerably lessened by this habit of investing a great portion of the family's savings in 'jewellery'.[1] Ornaments in fact were in the past 'what an insurance policy is in modern days. The large amounts invested in them

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1. S.K. Maity - op. cit. p. 104.

have enabled thousands of Hindu women to tide over difficult times' [1].

Very few specimens of jewellery have been discovered from archaeological excavations. A gold amulet in two fragments have been found at Bāngarh [2]. Another gold pendent found at the same site is a very fine piece of workmanship. It shows design of a chain bordered by beads. It is, in fact, a remarkable piece of evidence showing to what height the art of goldsmiths was carried in Bengal even as early as the second or first centryry B.C. A few specimens of copper rings and bangles have also been found at Bāngarh . Gold, silver and bronze rings, bangles, earrings etc. have been found from Maināmati.[3] But these are very few and do not give us a full idea of the jeweller's art. On the other hand, the beautiful ornaments on the carved or moulded figurines and numerous references to them in epigraphic and literary sources, help us a great deal in determining the various types of ornaments used during this period. Thus the Rāmacarita refers to the jewellery used by princely families and consisting of anklet bells, charming ornaments set with diamonds, lapis luzuli, pearls, emerelds, rubies and saphires and 'necklaces with central gems' ,[4] and pure pearls of round and big shape [4]. The Deopāḍā inscription of Vijayasena mentions that flowers made of precious stones, necklaces, earrings, anklets, garlands and golden bracelets were worn by the wives of the Kings servants.[5]

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1. Altekar - The position of women in Hindu civilisation p. - 365
2. K.G. Goshwami, op cit. P16
3. F.A. Khan, op cit. p - 35.
4. R.C. III v 33-34. References to different kinds of jewellery are also found in Dandin's Daśakumārcarita, ch. VI
5. I.B. pp. 42 ff. v. 11, 30.

In another context it mentions temple girls 'the charm of whose body were enhanced by the wearing of jewellery'.[1] The Naihāṭi copper plate of Ballālasena refers to necklaces of pearls worn by ladies of royal blood.[2] The sculptural panels at Pāhārpur, Mahāsthāngarh, Maināmati etc. reveal that not only women but men also put on ornaments such as necklaces, bracelets, armlets, girdles, anklets and earrings. The Rāmacarita also refers to many articles of furniture made of gold with fine intrinsic designs.[3] Again while describing the royal palaces at Varendrī it refers to the golden pitchers placed high on palace tops.[4] These are often referred to in later literary sources.[5] The Edilpur copper-plate of Kesávasena mentions water vessels made of iron.[6] The Tabaqāt-i-Nasiri casually alludes to the use of golden and silver dishes in the palace of Lakṣmaṇasena.[7] One spouted vase with long neck made of copper have been found at Pāhārpur.[8] The Bhāṭera inscription[9] mentions one bell-metal worker (Kaṃsakāra). From this we can infer that bell-metal which is an alloy of tin and copper was used and most probably for making cooking utensils.

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1. I.B. pp 42 ff.
2. Ibid. pp. - 68 ff.
3. R.C. III v. 33-34.
4. Ibid, - v, 23.
5. D.C. Sen - Purva Vaṅga Gītikā pp. 217 ff.
6. I.B. p. 118.
7. Elliot and Dowson II p. 309.
8. M.A.S.I. (55) pl. XXI. e.1.
9. E.I. XIX p. 283.

Metals were also used in the manufacture of weapons. Some arrow-heads, spear-heads, swords and daggers have been discovered at Pāhārpur [1] and Bāngarh [2]. Iron implements such as nails, chisels, knives have also been found at various archaeological sites of ancient Bengal. Besides these, the terracotta plaques show people carrying swords etc. [3] The Agni Purāṇa refer to Aṅga and Vaṅga as important centres of sword manufacture. From the same source we know that the swords made in Vanga were 'characterised both by keenness and their power of standing blows' [4].

Besides working in iron and steel, the metal workers of Bengal showed considerable skill in bronze casting. This is shown by the discovery of a large number of bronze or octo-alloy (aṣṭa dhātu) images in different parts of Bengal and Bihar and dating from the Gupta period onwards. Most of these show excellent workmanship and are finely chiselled and some inlaid with gold and silver. [5] The use of bronze images in worship seems to have been specially prevalent among Buddhists and this art seems to have flourished greatly under the patronage of the Pāla kings.

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1. M.A.S.I. (55) pp. 85-86
2. K.G. Goshwami - op cit p 17.
3. M.A.S.I. (55) pls L VII, b,c,d,e.
4. Agni Purāṇa - 245. 21
5. Sarvāni Image of Prabhāvatī, E.I. XVII p. 357.

Pāla bronzes are so numerous that there is no doubt that they were mass-produced (pl V, a, b, c; VI). They were exported to South East Asia, where many have been discovered and to Nepal and Tibet where they provided prototypes for indigenous schools.[1] Like all Indian bronzes these were usually made by cire perdue process. The figure was first moulded in wax, which was covered with a coating of clay. The whole was then heated so that the wax melted away, leaving a mould to be filled with metal.[2] Large standing figures, such as the Sultanganj Buddha which weighs a ton, were often made in two parts which were then welded together.

Besides bronze images, one ornamental bronze pedestal has been found in the ruins of Maināmati.[3] A bronze caitya has been found from Pāhārpur.[4] Two relic caskets of the same material have been recovered from the ruins at Maināmati.[5]

But of all the metal-workers the blacksmith must have been the most important, for no settled agricultural community could possibly dispense with his service. Agricultural implements such as plough-shares, spades, sickles, hammers must have been manufactured in large quantities, though, unfortunately, very few specimens of these

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1. Bernet Kempers, Bronzes of Nālanda pp.14, 72
2. C. Sivaramamurti - South Indian Bronzes. p - 14
3. F.A. Khan - op. cit. p - 28
4. M.A.S.I. (55). pl. LVIII p.
5. F.A. Khan - op. cit. p - 29.

are known to us from excavations. The numerous copper-plate grants of our period show that this metal was also used in the metal industry. Iron plates were not suitable for charters of land grants, for iron corrodes easily owing to moisture, so copper, sometimes mixed with tin, was usually used for permanant charters. A number of copper awls and collyrium stricks have been found at Bāngarh. [1]

Stone and Wood

Two other categories of craftsman were the workers in stone and wood. The numerous stone images of God and Goddesses discovered from different sites of ancient Bengal and the beautifully engraved inscriptions on stone slabs, bear eloquent testimony both to the volume and skill of the stone carvers. Most of these are carved out from black chlorite stone brought probably from the Rajmahal hills. Alongside stone carving, wood carving and carpentry also appears to have provided living for many. It is unfortunate that owing to the perishable nature of wood and the dampness in the climate of Bengal, only a few architectural specimens of wood-carving of ancient Bengal have come down to us. However, some wooden pillars and door frames ornamented with elaborate decorations and belonging to the Pāla and Sena period lie scattered throughout the ancient sites of Bengal. A remarkable pillar, recovered from a tank at Arial in the district of Dacca, amply testifies to the prolific use of this material in the

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1. K.G. Goshwami, op cit. P.P 16-17.

structural and plastic art of the country. In this connexion, mention may also be made of a wooden bracket recovered from Sonārang and now preserved in the Dacca museum. It testifies to the considerable skill on the part of the carpenter and brackets of similar type were most probably fixed on tops of pillars in order to support the architraves or lintels in a building made either of brick or stone.

Moreover, in a country covered with a net work of rivers, boats must have been the principal means of conveyance. From various references to boats and ships in epigraphic and literary sources,[1] it may quite reasonably be inferred that there was a flourishing and busy industry in its construction.

Ivory-Carving

Another important industry was ivory-carving. The Bhāterā plate of Govinda Kesava[2] mentions an ivory worker (dantakara) while the Edilpur copper-plate of Kesavasena refers to planquins supported by staff made of elephants' tusks.[3] A miniature ivory stick and a fragment of an ivory comb found at Bāngarh prove that the people were familiar with these objects.[4]

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1. Infra. pp 238-239.
2. E.I. III. pp. 297 ff.
3. I.B. pp 118 ff.
4. K.G. Goswami. op. cit. p. 30

Cane and bamboo, which grew abundantly in Bengal, must have provided raw material for another important cottage industry of the time. Some of these were used in the making of bullock carts and in furnishing huts. These were also, of course, used for building houses and specially for curvilinear roofing of the buildings, which according to Fergusson is a speciality of Bengal. [1] Taking advantage of the elasticity of the bamboo, the people used it together with thatch in building this curvilinear form of roof. Lutes, Baskets, mats, sun-shades etc. were also manufactured from cane and bamboo. The fine mats known as śital pāti, often referred to in the literary sources of our time [2] were listed as articles of luxury and were in great demand among the wealthier section of the society.

Among minor arts, crafts and industries mention may be made of those of florists, conch-shell workers, oilmen, painters, fishermen, washermen, barbars etc. who formed so many distinct castes in the Bṛihaddharma Purāṇa and the Brahma-vaivarta Purāṇa.

In view of the scanty materials at our disposal, it is difficult to give a detailed account of the nature and organisation of industrial labour in ancient Bengal. There are however, scattered references in inscriptions which suggest that the workers engaged in different

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1. J. Fergusson ~~and J. Burgess~~ - History of Indian and Eastern Architecture. Vol. II pp 253 - 254. London 1910.
2. D.C. Sen., Purva Vanga Gitika - Vol. II, pt. II, p 223.

branches of Arts and crafts were grouped in some organised corporate groups. Thus, there is reference to nagaraśreṣṭhin, prathama sārthavāha, prathamakulika and prathama-kāyastha in the Dāmodarpur plates.[1] The Pāhārpur copper-plate refers only to nagaraśreṣṭhin.[2] Scholars differ in interpreting the exact meaning of the terms mentioned above. According to Ghoṣāl, nagaraśreṣṭhin should be taken to be the guild president, prathama sarthavāha as the leading merchant, prathama kulika as the leading banker and prathama Kayāstha as the chief scribe.[3] On the other hand Dr. Bloch translates the first three terms as a banker, trader and a merchant respectively.[4] Sircar[5] and Salatore[6] interpret nagaraśreṣṭhī as guild president. Dikshit takes it as the mayor of the city council.[7] Basak interprets it as the most wealthy man of the town, perhaps representing the rich urban population.[8] Maity holds that nagaraśreṣṭhī might be the chief of the trading community in a city.[9]

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1. E.I. XV pp - 130 ff.
2. Ibid. XX p - 63.
3. H.R.S. p . - 202.
4. A.S.I. (1911-12) p. - 56.
5. Select.Ins. p - 284. f.n. 6.
6. Salatore - op cit. p. 366.
7. E.I. XX pp. 63. ff.
8. E.I. XV . p. 128
9. Maity - op. cit. p -122.

However, the term Nagarasresthi literally means merchant of the town and in our opinion it may quite reasonably be taken to mean president of the merchant guild. The next three designations, might in a similar way be translated respectively as the chief of the caravan trades, chief of the artisan classes and chief of the scribes. The important position held by these men in the district administration clearly suggests the flourishing state of trade and industry at that period. Moreover, it suggests that possibly the trading and artisan classes were somewhat losely organised in small corporate groups or castes and each had its leading representative in the district council.

In the Sena period, the Deopaḍa inscription of Vijayasena speaks of Ranaka Sulapāni, who engraved the inscription, as the crest-jewel of the Varendra Śilpi Gosthī.[1] The exact meaning of gosthī may be a matter of doubt, and it is not sure whether by this expression we are to understand that there was a regular guild or association of artists in Varendra at that period. Again there is a passage in Tārānātha's History of Buddhism in India, which refers to the existence of the Eastern School of Art headed by Bitapāla, son of Dhīmāna who flourished in Varendra in the early part of Pāla rule in Bengal.[2]

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1. I.B. pp- 45-46.
2. Tr. Schiefner. pp, 279 - 80.

The style of these two master artists, we are told, by the same source, influenced painting and bronze casting in the neighbouring kingdoms of Nepal and Tibet. Another account of these two artists is found in the Tibetan text Pag-Sam-Jon-Zang.[1] But unfortunately there is no evidence to show that the school to which Bitapala belonged was identical with the Varendra school mentioned in the Deopādā inscription. The term gosthī literally means a multitude and N.G. Majumdar is doubtful whether Varendra Śilpi Gosthī denoted a guild of artists of Varendra.[2] But we know that guilds of different workers and artisans existed in other parts of India.[3] Moreover, in view of the important positions held by the Nagara-Śreṣthin, Prathama Sarthavaha, Prathama-Kulika and Prathama Kāyastha, as evidenced from earlier inscriptions, it is perhaps not unreasonable to point out that guilds or some form of association of merchants and artisans existed in Bengal also.

Moreover, as has been rightly pointed out by Maity, 'The tendency to organisation on a co-operative basis was inherent in the division of castes and the allocations of their duties. It was quite natural that men working in a particular type of craft should group together on the basis of their calling. Thus the stratification of society on the basis of caste system produced certain beneficial results in

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1. Annual Report of the A.S.I. (1921-22) p. 104.
2. I.B. p.46.
3. C.F. Maity - op. cit p-155 ff; P. Niyogi - Economic history of Northern India - pp. 248 ff.

the field of industry and trade'[1]. So it is sometimes difficult to distinguish between caste and guild. A large number of castes and their vocations are mentioned in the Brhaddharma Purāṇa[2] and the Brahmavaivarta Purāṇa,[3] composed not later than the thirteenth and fourteenth centuries A.D. and known to reflect the peculiar conditions prevailing in ancient Bengal.

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1. Maity, op cit - p 155.
2. Ed. H.P. Śāstri (Biblotheca Indica series) Calcutta 1897.
3. Ed. Pancānana Tarkaratna. Calcutta 1827.

CHAPTER V

TRADE AND COMMERCE

Trade and commerce, as a source of wealth and a means of providing the people with commodities that they do not themselves produce, as well as exchanging the agricultural surplus for other products was an honourable means of livelihood in ancient Bengal. Though in modern times Bengal has lost much of its reputation in this field, the high antiquity of its inland and foreign trade is borne out by a large number of indigenous and foreign sources. These prove that many of the products of Bengal were known and admired in different parts of the ancient world. Two factors seem to have facilitated the early development of trade and commerce in Bengal; firstly the qualitative and quantitative development of her industries and secondly, the unrivalled facilities for easy movement of goods, afforded by the wonderful network of numerous navigable rivers. The harbours on the Bengal sea-board in the south also furthered the cause of foreign trade. We have no definite means to ascertain the date hwne Bengal first attained prominence in the field of trade and commerce. Yet it seems probable that the Gupta period owing to the internal peace and security throughout the whole of northern India, helped the development of a rich and prosperous foreign trade of India as a whole. And, north Bengal, being part of the Gupta empire, must have greatly profited from this. Thus, though there must have been some amount of internal as well as external trade before the Gupta age, large-scale commercial connexions between Bengal and the outside world should be dated from that time onwards, for it is for the first time in the Dāmodarpur

copper plates[1] that we find, that representatives of the trading and merchantile classes occupy important positions in district administration.

We propose to discuss trade under two sections -(1) internal and (2) external. The latter is again subdivided into (a) overseas trade and (b) interstate trade. Of the different agricultural and industrial products of ancient Bengal, the major part would, no doubt be required for direct or home consumption and were, of course, used up on the spot. The economic system gave prominence and preference to production for domestic use, as against production for exchange. But when a surplus over the domestic needs was left over; or when the production of any commodity was in excess of all home requirements; or was a particular speciality of the region, it may well have been utilised for export, just as well as any commodity which was not available in home production in sufficient quantity could and would be imported. This must have been the natural origin of trade in Bengal, as in the rest of India - whether internal or external.

Internal Trade

Compared with the information about foreign trade in Ancient Bengal, the materials at our disposal for reconstructing conditions of internal trade in the same period are very few. This is due to the fact that inscriptions, which form the most valuable and trustworthy source of our information concerning the early economic life of the people, do not and cannot by their nature be expected to deal primarily with trade.

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1. E.I. XV. pp. 130 ff.

Whatever references to internal trade are found in them is purely accidental. Similarly old Bengali literature like the Candīmaṅgal and Manasā Maṅgal Kāvyas, though giving us vivid and often exaggerated accounts of the foreign trade of Bengal refer hardly to conditions of buying and selling in home markets. The time when these works were composed, the sea voyages and foreign trade of Bengal were limited to a vague tradition in which facts and fictions were hopelessly blended. Yet, these poets seem to take pleasure in depicting that glorious tradition rather than to enumerate dry facts of internal buying and selling of goods. Nor do foreign travellers and historians throw much light on this matter, for they had very little first-hand information. Most often, their visit was confined to one or two important towns or ports and their chief interest naturally lay in the foreign trade of the country. Moreover, many of their accounts were based on records left by earlier travellers. As a result, these sources furnish very few facts on the different aspects and items of internal trade in ancient Bengal.

In view of the meagre materials at our disposal, we have often been compelled to use materials belonging to later times, for it is well known that, the socio-economic structure of an area is rarely subject to sudden change; Many of the conditions of internal buying and selling in markets, means of transportation etc. now prevalent in Bengal, must be regarded as a continuation of earlier period.

From the available sources, it is apparent that the internal trade had three distinct aspects, which also reveals the inter-relation between resources, the market and the conditions and nature of transport facilites.

1. The first was connected with trading activity embracing the movement and exchange of agricultural and industrial products between different parts of Bengal. Commodities such as rice, pulses, oil-seeds, sugar and other articles of local origin enter into this activity.

2. Another aspect of internal trade was linked up with the movement of raw-materials of agriculture or industrial origin, primarily meant for export out of the country. Articles such as fine textiles, sugar, rice etc. were collected and then carried to different ports or centres of trade, to be exported to different countries through sea or land. Collection was the main aspect of these transactions, while distribution played only a minor role.

3. The third aspect was the handling of mainly imported articles, such as metals, precious and semi-precious stones, horses etc. meant for internal distribution. This activity of internal trade was obviously marked by its distributional character.

It follows from the above that some amount of internal trade was directly connected with foreign trade.

The village markets were known as Hattas - held weekly or bi-weekly even now everywhere in the rural areas. The cultivators and village artisans went to these local markets, where they sold their goods and obtained their own requirements in exchange. These markets are held usually at centres within easy reach by land or water. Their duration is limited to a day or less and they are usually held on certain days of the week. But in many densely populated areas, they may be held bi-weekly or even daily. They vary greatly in size and

so do their attendance. On non-market days the place is practically deserted. There may or may not be any permanent shop in these hattas. There are many references to these rural markets in ancient literary[1] and epigraphic sources. The Dāmodarpur copper plate No. 2, mentions a hatta in connection with the purchase of a plot of land.[2] The Khālimpur plate records the grant of four villages along with Hattikā which Kielhorn interprets as market dues.[3] From this it is reasonable to infer that the state derived some revenue from the sale of goods in these markets. The Ixdā plate[4] also mentions the grant of a village 'along with its market place', while the Bhāṭerā plate[5] speaks of shops in rural markets in some of the donated villages. Some of these rural markets were of considerable size, as is suggested by the reference to Hattavara in the Bhāṭerā inscription mentioned above.[6] From these references it is easy to see that these Hattas occupied an important place in the rural economy. Small portions of the villager's produce were sold and sometimes exchanged for other necessary articles for local consumption in these weekly or bi-weekly markets. Sometimes, however, without taking his wares to the markets, the producer sold them direct to the consumer.

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1. V.S.P. pp.155,195.
2. E.I. XV pp.133-34
3. E.I. IV, p. 254. fn. 5.
4. Ibid. XXII. 155.158
5. Ibid. XIX p. 277.
6. Ibid.

Apart from the rural markets for local sale both retail and wholesale, there existed shops and markets in towns. Of the three aspects of internal trade, mentioned above [1] the last two were definitely more connected with towns and ports than villages. Thus we learn from the Kathāsaritsāgara that Pundravardhana had a great market place and streets lined with shops [2]. As Tāmralipti was favourably situated in relation to ancient trade routes and was easily accessible from a productive hinterland it grew into a great emporium and became the home of rich merchants. [3] Again, some regions, especially on account of the fertility of the soil and the availability of water, were densely populated and as such attracted traders and businessmen. Thus on the testimony of the Faridpur plates we know that Nāvyāvakāśikā was a rendezvous of merchants and businessmen. [4] The Dāmodarpur copper plates tell the same with regard to one important provincial centre viz. Koṭivarṣa in Pundravardhanabhukti. [5] Different traders and craftsmen, such as Gandhavaṇik Suvarṇa-vaṇik, maṇi-vaṇik Kaṃsya-vaṇik, Śaṅkha-vaṇik Mālākara, Tailakarau, Sutradhara, Modaka, Bārui, Nāpita etc. who occupied separate quarters of a market town, are mentioned in the Dvija Harirāmas Caṇḍikāvya. [6] Another vivid account of the grocer Murari Seal and the way in which he transacted business is to be found in Mukundaram's, Caṇḍikāvya. [7]

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1. Supra., p - 215.
2. Kathā II. 86.
3. Ibid. IV. 211.
4. I.A. Vol. XXXIX. — p. 193; XXIII — p. 155.
5. E.I. XV. pp. 128 ff
6. V.S.P. p. 318.
7. Ibid. pp. 342-349.

TRANSPORT

Transport and communications are the means by which agricultural and industrial commodities are moved for internal consumption and for export abroad. Amongst all forms of transport, waterways dominated the scene in Bengal. These waterways may be divided into two categories. First, large deep rivers, which are navigable throughout the year and capable of carrying craft of various sizes. In this class may be placed the Ganges, Brahmaputra and Meghnā rivers. These rivers, along with their tributaries and inter-connexions, served as corridors or natural routes for long-distance waterborne traffic. It is probable enough, though statistical data are lacking, that throughout the ancient and medieval periods they bore the greater part of the inland traffic of the province. Especially during the monsoon months this capacity was greatly increased, for the remotest areas in the country are then accessible only by water routes. In fact, all other means of transport at that time are

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1. V.S.P., p. 378.

2. Ibid., pp. 347-349.

at a disadvantage. These rivers have also been of immense importance in the siting of commercial and collecting centres in the past.

In the second category may be included smaller and shallower rivers and streams, which are navigable in some cases throughout the year, and in others only during the monsoons and for small country boats. There are many references to nauvāṭaka,[1] nauvitāna,[2] naudandaka,[3] etc., in the copper-plate grants. The early Caryāpadas frequently refer to boats and mention their component parts.[5] In the Rāmacarita, there is a reference to the river Ganges having been covered with a fleet of boats.[6] The skill of the people in the use of boats for all purposes is borne out by another reference in the Raghuvaṁśa.[7] All these references definitely point to the conclusion that rivers played a great part in the transportation of goods from

1. E.I. IV. p. 252; E.I. II, p. 311.
2. I.B. - p. 48.
3. Select. Ins., p. 356.
4. I.B., p. 48.
5. Cf., H.B., p. 617.
6. R.C., Ch. II, verse 70, p. 46.
7. Raghu, IV., 36.

one part of the country to another.

Apart from the rivers, a certain amount of trade also passed along land routes. Usually carts, drawn either by bullocks or by buffaloes[1] were used as transport for men and goods to cover short distances. Because of the typical river-ridden surface of a large part of the country, ferries[2] must certainly have been an important feature of road transport.

Unfortunately, however, our knowledge about the internal trade routes is very limited. There are only a few scattered references in inscriptions, in the accounts of foreign travellers and in contemporary literature. Foreign travellers were generally interested more in foreign trade, and the routes they mentioned were mostly connected with it. Yet the itineraries of Fa-hien and Hiuen Tsang point to the existence of some internal land routes connecting, some of the important cities of the country.

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1. R.C. III, 35-37.

2. Journal of the Dept. of letters, XXX, p. 28-30, B. C. Sen, op. cit., p. 541.

One of these we are told stretched from Kajangal or Northern part of West Bengal to Puṇḍravardhana. From northern Bengal another road extended to Kāmārupa. It was along this route that Hiuen Tsang travelled in the seventh century A.D.[1] We learn from the same source that another road linked Kāmārupa with Samataṭa and further with Tāmralipti, in south-western Bengal.[2] Yet another road extended between Tāmralipti and Karṇasuvarṇa. Thus, we find that different ancient divisions of Bengal were closely linked with one another by means of roads. Many of these had existed since ancient times. The Chittagong plate of Dāmodara mentions a public road (rāja-patha) passing by the side of a village.[3] A few years ago K. N. Dikshit discovered the remains of two ancient embanked roads in the neighbourhood of Dhānorā.[4] Many of these roads extended beyond the frontiers of Bengal and were used by travellers, pilgrims as well as merchants.

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1. Beal records, II, 195.
2. Ibid.
3. I.B., p. 158.
4. A.S.I., 1922-23, p. 109.

Position of the trading and mercantile group of society

By virtue of their wealth and position, the traders enjoyed considerable influence in the society. There were big (pradhāna vyaparinah)[1] and small traders. The former possibly dealt with wholesale trade, while the latter was more or less concerned with retail trade. The interests of the merchants were looked after by three important members of the district council - the Nagarasresthin, the Sārthavāha and the Prathama kulika mentioned earlier.[2] They appear to have been the leading members of their groups or castes and probably held office on a hereditary bases. We have evidence that under the Colas, there existed in South India an assembly known as Nagaram.[3] It was in all probability, a primary assembly of merchants, organised as one of the local assemblies in important trade centres. The members enjoyed wide powers, levying local taxes and exercising judicial functions with the concurrence of the representatives of the central government. Though we have no definite proof, yet it is possible that the three members of the district council also enjoyed somewhat similar powers in our period.

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1. I.A., 1910, p. 204.

2. Supra, p. 208.

3. Nilakanta Sastri, Colas, p. 487 ff.

The Nagaraśresthin and the Sārthavāha, had certain other functions to perform. Śresthin, in sanskrit indicates a merchant and Nagaraśresthin should therefore refer to the chief of the trading community in a city. Most probably, his primary function was similar to a capitalist in the modern society. He used to furnish the capital to various traders and merchants and was perhaps very little directly connected with trade himself. They were often fabulously wealthy. A grand marriage procession described by Vijaya Gupta, shows the immense resources of a Bengali merchant of this class, in these days.[1] Because of their wealth and riches, these śresthins often acted as money-lenders and bankers. For example, from Ballālacarita, we learn that once Ballālasena borrowed a crore of niskas from Ballabhananda, the richest merchant of his time, for the purpose of conquering the King of Udāntapura.[2]

The position of the Sārthavāha seems to imply that there was some sort of association among merchants travelling by land. Trade routes often passed through dense forests and hills infested with robbers, wild tribes and animals.

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1. V.S.P., p. 205.

2. C.f. H.B., p. 240.

For this reason, the traders preferred to share their perils and so organised themselves into large groups under the guidance of a caravan leader. These caravan leaders were already noted in other parts of India and the Jātakas, specially are full of references to caravans or long lines of two-wheeled bullock carts under a leader (Sārthvāha).[1] The position of the Sārthvāha apparently implied that the other merchants with their carts and caravan followers followed and looked forward to him for directions as to halts, watering, precautions against brigands and even as to routes, fording, etc. For purposes of discipline the Sārthavāha may have been accorded a certain degree of prestige and authority among his fellow-travellers and traders. But the latter, by their acquiescence, did not surrender their independence subordination, if any was voluntary rather than compulsory.

The briskness of internal trade can also be inferred from references to a number of important officials in inscriptions. These were definitely associated with the revenue department. Thus the Haṭṭapati mentioned in the Rāmgaṇ copper plate of Iśvaraghoṣa,[2] was most probably an offier entrusted with the supervision of the rural markets and the collection of the

1. Jātaka I, 98, 368, 377, 404; III, 200, 403; V, 164, 471.
2. I.B. - p. 149.

market dues. Śaulkika, mentioned in most of the Pāla land-grants[1] was an office in charge of collecting tolls and custom duties from the different articles brought to these markets. As large amounts of goods were carried to different centres along the rivers, it is likely that ferry dues constituted an important source of state revenue. Officers in charge of the collection of these dues were known as Ṭarapati or Ṭarika.[2] There are again references to officers known as Vyapāra-kārandya in the Koṭālipādā plate No. II of Dharmāditya[3] and Vyapārandya and Vyapāra-Viniyuktaka in the grant of Gopacandra.[4] Scholars do not agree on the interpretation of these terms. Thus, while Pargiter[5] holds that these terms denote officials charged with the duty of looking after trade, Sircar is doubtful about the correct reading of the terms.[6] But as Navyāvakāśika was an important district centre, it is quite possible that copper-plate grants issued from there should contain some reference to men associated in some way with trade,

1. E. I. IV, p. 25; XVII, p. 321; XVIII, p. 306.
2. Ibid.
3. Select. Ins., p. 354, line 5.
4. Ibid., p. 35, line 3; p. 359, line 5.
5. I.A. 1910, p. 212.
6. Select. Ins., p. 554, f.n.7.

for the term vyapāra is definitely connected with trade.

In order to safeguard the interests of buyers and sellers alike, elaborate market regulations were laid down in earlier legal tests, such as the Nārada[1] and Brhaspati[2] and Smṛtis. In later times, these regulations probably underwent some modifications. Yet, on the whole, there seems little doubt that Bengal should also have followed these rules and regulations. Similarly, the laws for hiring a conveyance or a labourer to transport merchandise from one place to another, which appear in earlier legal texts, would seem to hold ground in our period also. The later commentators only clarify the existing rules. But, by way of elucidation, they add many more details, presumably based on later practice.

From available sources, it is difficult to find out the prices of different articles in the market. But compared to modern times, things must have been far cheaper in ancient Bengal, for even as late as the fifteenth century 'the whole marriage

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1. Nārada - IX, 2-5.

2. Brhaspati - XVIII, 34.7.9.

ceremony of Caitanya Deva was performed with a few cowries and this was referred to as a magnificent instance of costly marriage by the poets who describe it'.[1] A few lines in Kavikaṅkan's Caṇḍī Kāvya, also of a later date, describe the abundance of articles in those days.[2]

In general, buying and selling was conducted by means of barter, though there was a medium of exchange in the shape of cowries and copper coins for smaller, and gold and silver coins for larger transactions.[3] Although the traders were generally relatively honest, some amount of dishonest dealings prevailed in the market, especially in later times, when trade and commerce declined to a great extent. The picture of Murāri Śīl in the Caṇḍīkāvya[4] and that of the merchant mentioned in the story of Śaṅkhamāla,[5] show that Bengali merchants in the declining days of their commercial activities had lost much of their traditional honesty and integrity.

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1. T. C. Das Gupta, op. cit., p. 306.
2. Ibid., p. 307.
3. Infra, pp 301 ff.
4. V.S.P. - p. 349.
5. C.f., T. C. Das Gupta, op cit., p. 365.

External Trade

Bengal entered the field of foreign trade, long before the commencement of the Christian era. Besides being commercially linked with the rest of India by land and water and actively participating in inter-state trade, it also had a prominent role in the sea-borne trade and cultural expansion of India, especially towards Ceylon and South East Asia. Situated in the north - eastern corner of the Indo-Pakistan sub-continent, it also functioned more or less as a connecting overland link between India and what is now Burma and from there again with other parts of South East Asia and to Southern China.

The Mahāvaṁsa[1] and other Buddhist works record the tradition that about 480 B.C. Prince Vijaya of Bengal landed in Ceylon and established an Indo-Aryan settlement there. In the absence of further corroborative evidence, it is difficult to ascertain the amount of historical truth contained in the story. It may be based upon some genuine tradition and relating to the early political relation between Bengal and Ceylon, or simply may be an echo of later commercial enterprises emanating from Bengal to overseas territories towards the South and South East.

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1. Mahāvaṁsa, Tr. W. Geiger, Chapters 6 - 8.

The evidence of Pliny[1] and the Periplus of the Erythrean Sea[2] prove that Bengal maintained active overseas trade with South India and Ceylon in the first century A.D. As early as that time it had commercial connections with also China, for we know from the Periplus that silk goods came into Bengal from China through some land routes in the north.[3]

The Milindapañha which in its present form dates back to about the fifth century A.D. refers to overseas trade between Vanga and different countries of the East in these lines :- "As a wealthy shipowner scrupulously discharges his port dues and, putting forth on to the high seas, voyages to Vanga, to Takkola, China, Sovira, Surattha, Alasanda, Kolapattana, Suvannabhumi or some other port where shipping congregates".[4] Although not all the places mentioned here can be identified[5] there is little doubt that commercial relations between Bengal and other countries such as China and South Burma is definitely established by the above statement.

Again we learn from the Kathāsaritsāgara that merchants from Tāmralipti carried on overseas trade with distant countries

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1. McCrindle, Ancient India as described in Classical literature, p.-103.
2. Periplus. p.47. Recent research has shown that the Periplus should be dated centuries later than has hitherto been supposed. The concordance with Pliny may, however, indicate that this piece of information goes back to a first century source.
3. Ibid. p.48.
4. P.Wheatley, The Golden Khersonese. Kuala-Lumpur 1961. p.-181.
5. Ibid. pp. - 269-272.

like Lankā (probably Ceylon) and Suvarṇadvīpa (probably Sumatra).[1]

The commercial pursuits were often combined with artistic and religious missions. The fame of Buddhist scholars such as Atīśa and Śīlabhadra, spread throughout Asia. An inscription in Java dated A.D. 702, mentions that a guru at the Śailendra Court was an inhabitant of Gauḍa.[2] We have also reference to the grant of five villages by Devapāla at the request of King Bālaputradeva of Suvarṇabhūmi (Sumatra) for maintaining the monastery that the latter had built at Nālanda.[3]

A group of four inscriptions incised on a piece of stone slab was discovered in the northern part of the province of Wellesley in Malaya Peninsula in 1834.[4] They are written in Sanskrit and in Indian alphabets of the fourth and fifth century A.D. One of them, inscribed with a stupa, bears a prayer in the fifth century Pallava script for the success of a voyage about to be undertaken by Mahānāvika Buddhagupta, an inhabitant of Raktamṛttikā. H. Kern[5] and several subsequent writers identified this Raktamṛttika with the kingdom called Chi-tu of the Chinese sources and located it

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1. Kathā. tr.VI.211. This text was composed in Kashmir in the second half of the eleventh century, but may incorporate older traditions.
2. R.C. Majumdar, Suvarṇadvīpa, pp. 151-52.
3. Nālanda C.P, E.I. XVIII p.318.
4. P.Wheatley, op.cit. pp.274 ff.
5. J.A.S.B. XVII. 1848. pp. 62-72.

in Siam or its neighbourhood, while Dr. N.J. Krom [1] R.C. Majumdar[2] and N.R. Roy[3] located it in India. Hiuen Tsang, in the course of describing Karṇasuvarṇa the capital of Gauḍa under Śaśāṅka, refers to a nearby monastery called Lo-to-mo-Chih, i.e.: Raktamṛta in Pāli and usually identified with a place still known as Rāṅgāmāṭi, 12 miles south of modern Murshidabad.[4] Besides, there exists another Rāṅgāmāṭi in the present Chittagong district. An additional argument in favour of Bengal is that names ending in Gupta are unknown outside Bengal.

But similarity in names does not necessarily solve the problem of identification of Raktamṛttikā, for names meaning red-earth are very common throughout Indonesia, Malaya, etc. Again, we have no means of telling whether Buddhagupta set up his inscription before the beginning of his voyage at all or before his return journey; in other words whether Province Wellesley was his port of departure or his destination.

On the other hand, a strong objection against regarding Buddhagupta as belonging to Bengal is the fact that this

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1. N.J. Krom, Hindoe Javaansche Geschiedenis 1926. p-73.
2. R.C. Majumdar, Suvarnadvīpa, part I. pp. 82-83.
3. B.I. p.- 192.
4.

inscription is written in a South Indian script.[1]

Nevertheless, the existence of close relations between Bengal and some parts of South East Asia follow from the great influence exercised by Pāla art upon that of South East Asia. It has long been believed that prototypes of the Borobudur in Java and the Ānanda pagoda at Pagan, which rise in terraces, must be found somewhere in India, particularly in Bengal. The temple at Pāhārpur, with its symmetrical plan, projecting angles between the sides, the rising terraces, the high walls decorated with sculptural niches, terracotta plaques and the ornamental band of cornices, can well be considered a model which greatly influenced the architects of the Ananda temple at Pagan.[2] This is also true of other temples in Java, Sumatra and Cambodia.

Moreover, the development of bronze technique of Nālanda, most of which belong to the Pāla school of art, had definite influence on ancient Javanese art.[3] It is true that the Hindu-Javanese bronzes in general have not developed from Pāla art, but Pāla images have enriched the art of Java with a number of motifs and types. There is much similarity in the

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1. P. Wheatley, op.cit. pp.-274 ff.
2. P. Dupont, "L'archaeologie mône de Dvaravati", B.E.F.E.O. XL1,1959. pp.57-63.
3. A.J.Bernet Kempers, The bronzes of Nālanda and Hindu-Javanese Art. p.77.

composition and in the dress of these two kinds of images. Most probably, the Javanese casters knew Pāla representations and took them as their model. A few small-size metal images may have been imported from Bengal, sometimes by pilgrims returning from India.[1]

It is true that some of these evidence are not directly related to trade and commerce. These point more towards religious and cultural connections than commercial expansion. Yet, there is no doubt that the relation rested primarily on trade. The motive of these voyages to the east was to secure wealth and this is abundantly clear from the literature of the time. It was the chief stimulus of this intercourse between Bengal and South East Asia. Missionary and political activities may have followed in the wake of trade. A Javanese text, the Nagara Krtagāma, composed in A.D. 1365, includes Gauda in a list of countries, from where merchants as well as other classes of people came in large numbers to the Javanese capital.[2]

As far as inter-state trade is concerned, references in foreign and indigenous sources amply bear out the fact that probably from at least the fourth century B.C. Bengal was

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1. Ibid. - p.72.
2. Th.Pigeaud, Java in the fourteenth century. 1960 vol.III. p.98.

commercially linked up with other trade centres of Northern India. Ancient sources often mention important articles manufactured in Bengal. These must have reached numerous centres all over Northern India. Thus the Arthaśāstra specifies the different varieties of textiles manufactured in Vaṅga and Puṇḍra and also mentions their distinctive qualities.[1] These, especially the muslins, were in all probability valued for their delicate texture and beauty and used in different parts of the sub-continent.

Similarly swords manufactured in Aṅga and Vaṅga were famous all over India.[2] Various agricultural products of Bengal also must have been exchanged for other necessary articles of other parts of India.

Although there were many land routes, yet the Ganges, the artery of the great plain, was most probably the main line of communication between Bengal and the rest of Northern India. From very early times, ships carrying both goods and passengers, used to ply from the port of Tāmralipti up the river ot the City of Campā and from there via Pātaliputra (Pātna) to Benāres.

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1. Arthaś, Tr.II.११.१२-११५. pp 119-120
2. Agni Purāṇa, 245. 21.

Thus the Geography of Strabo, completed about A.D. 19, refers to the ascent of vessels from the sea by the Ganges to Pālibothra.[1] Again in the Śīlanisamsa Jātaka a sea-fairy as helmsman brings passengers by ships from the sea to Benares by river.[2] Conversely a number of other Jātaka stories mention merchants and businessmen boarding ships at Benares or lower down at Campā, which follows the course of the Ganges, proceeding through the Bay of Bengal either to Burma and Ceylon or even further east.[3] According to the Dudhpāni Rock inscription three brothers from Ayodhyā went to Tāmralipti to trade and made great profits.[4]

The trade relations between Bengal and the foreign countries referred or alluded to in the above mentioned sources, continued in subsequent times as well. The numerous references in Chinese accounts leave no doubt that there was active intercourse both by land and sea routes and streams of traders, pilgrims and others followed them in their journey between India and China. The port of Tāmralipti was an important emporium in Northern India. Most of the

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1. McCrindle, Ancient India as described in classical literature. p-16.
2. Jātaka II. Book II.190. p.78.
3. Jātaka IV. Book 12. 466. pp. 48 ff., VI Book 22.539. pp. 19 ff.
4. E.I. II. pp. 343-345.

Chinese travellers embarked on board merchant vessels and sailed from this port to Ceylon en route to China.[1] It is also known ~~that~~ from the Mahāvaṁsa that the mission of Aśoka started from this port for Ceylon.[2]

The tradition of ancient Bengal's maritime enterprises and commercial activities, is also well-preserved in old Bengali literature. In the Manasāmaṅgal and Caṇḍīmaṅgal poems, we find vivid descriptions of commercial activities of the prople of Bengal during the pre-Muslim period, although the poets dealing with these subjects belonged to a subsequent age. The ships visited distant countries such as Ceylon, Gujarat and Java and the poems incidentally also describe the routes, islands, etc., by which they passed, their inhabitants and various other topics connected with the voyages.[3] The description is sometimes highly exaggerated, for during the time when these works were composed, sea voyages had become no more than a vague recollection. There is no doubt, however, that these poems, though sometimes full of grotesque fiction,

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1. Legge, p.100; Takakusu, I-tsing, p.XLVI.
2. Mahāvaṁsa. XI.38
3. T.C. Das Gupta, op.cit. pp. 30 ff.

seems to contain at least some grains of truth. For example, they are amazingly accurate in respect of the route followed by the vessels. The mention of the once important ports of Tāmluk, Chicacole, Pātan, etc., which we come across so often in the pages of these literary works, was surely not a fanciful creation of the poets. The Bengali ships are stated to have doubled the Cape Comorin and reached Pātan in Gujarat. The voyage was primarily a coastal one and Ceylon which stood mid-way between Bengal and Gujarat was a favourite place of commerce for the Bengali merchants.[1] The largeness of ships and the picturesque shape of the prows representing various animals, according to the traditional mode of ship-building, are interesting indeed. It is true that many of Bengal's merchandise were carried in foreign bottoms yet, Bengal herself must have some ships of her own also. The poets of Manasāmaṅgal and Caṇḍīmaṅgal Kāvya seem to have described facts, though not entirely free from poetic flourishes. The rites and beliefs in connection with sea voyages are often

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1. T.C. Das Gupta, op.cit. pp. 30 ff.

given in these poems in detail. A vivid description of the construction of sea-going vessels is to be found in Bangśīdāsa's Manasā Maṅgal[1] and Kavikankan's Caṇḍī Kāvya.[2] The latter also gives elaborate details of the different constituent parts of a vessel, such as: - dāra (helm), mālumkaṣṭha (mast), tala (hold), māthākaṣṭha (prow), chaighar (shed), pāṭātan (deck), daṇḍakerwāl (oar), bansakerwāl (bamboo pole), fās (chord), naṅgar (anchor), pāl (sail), dara (keel), etc.[3] Most of these terms are still used in Bengal to convey the meanings they did in ancient times. Exaggerated descriptions are, however, apparent in the writings of Vijayagupta and some of the poets of later-day Manasā cult, when ship-building as an art was practically abandoned in Bengal. But though there is much that is legendary in these stories, the ancient traditions were not altogether lost sight of. The descriptions of voyages often go to show that ships of a very large size used to be constructed in Bengal even if sufficient allowances are made for poetic imagination.

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1. V.S.P. p.220.
2. Kavikankan Candi. ed. D.C.Sen, C.C. Vandopadhyaya and H. Vasu. 1926. Volume II. p.739.
3. Ibid.

The references to boats, ships and ocean-going activities in literature are substantiated by epigraphic evidence.[1] The Gunāighar copper-plate inscription[2] contains a reference to Mahā-nau, which suggests that besides small boats used in riverine traffic, a few large ocean-going vessels may also have been built in Bengal. There is again a specific reference to Dharmapāla's fleet of stone-boats crossing the sea.[3] What is meant by stone boats is not very clear but there is no doubt that this points to the sea-going activities of the Bengalis during Pāla period. Apart from these, there is a term, 'nāvāta-kṣeni' in the first Faridpur copper-plate of Dharmāditya, which Pargiter translates as ship-building harbour.[4] All these facts seem to point out that besides boats of different sizes, some sea-going vessels were also built in ancient Bengal.

Articles of exports and imports :-

As to articles of trade, it will be appropriate to begin with a list of the exports of Bengal. In this category the

1. Śukra. p.219.
2. Select. Ins. p.331. line 1.
3. R.C. I. 4.
4. I.A. 1910 pp. 193 ff.

pride of place naturally goes to cotton goods, especially muslin. We know from the Periplus that muslins of the finest variety were exported to South India and Ceylon from the market town of Gange in the first century A.D.[1] That it had attained all-India fame even before that time, is evident from the Arthaśāstra.[2] Outside India there was great demand for fine muslins among the ladies of Imperial Rome. These and other luxury articles from the East resulted in serious drain of gold from the Roman Empire. This was recognised by Pliny who, inveighing against the degenerate habits of his day, computed the annual drain to the East as a hundred million sestereas, "so dearly do we pay for our luxury and our women".[3] Bengal, as the most famous area for the manufacture of muslins, is sure to have received a share of this Roman gold. In subsequent times, there is frequent mention of Bengal's lucrative trade in cotton textiles of unique fineness, in the accounts of Sulaiman,[4] Ibu Khurdâdbah,[5] Chau Ju Kua[6] and Marco Polo.[7]

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1. Periplus. 47
2. Supra. p. 178.
3. McCrindle, Ancient India as described in Classical Literature, p.125.
4. Ferrand, I pp- 37-38.
5. E.D. I. 14
6. Chau Ju Kua, ed. Hirth and Rockhill, p.97.
7. Marco Polo II. 115.

Among agricultural products, betel leaves, areca-nuts and cocoanut occupied important place. They were exported to the neighbouring countries in large quantities.[1] Areca-nuts had a wide market in Arabia and Persia also. Arab merchants used to buy this product not directly from Bengal, but from the port of Sopara on the western coast of India. They knew it to be the product of Sopara and it is from this fact that the name 'supāri' for areca-nuts, now prevalent throughout India, originated. But in the rural areas of Bengal they are still called gua - the shortened form of sanskrit guvāka. Bengal derived considerable profit from its trade and this continued until at least the time of the East India Company, when it had almost complete monopoly in its trade.[2] That it was an important export product can be inferred from its frequent mention in the land grants of our period.[3] It yielded a considerable amount of revenue to the state in the time of the Senas.[4]

Certain foodstuffs like rice and sugar were articles of long distance trade. Rice was exported and exchanged for

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1. B.I. p.185.
2. Ibid. p.
3. Supra. p.63
4. Infra. p. 297.

cowries from the Maldive islands.[1] Sugar cane grown in Puṇḍraka was noted for the large quantity of sugar which it yielded. This sugar was carried to cooler and drier regions of India, where sugar cane would not grow. It was also exported outside India, for we know that in the thirteenth century Marco Polo noticed it as one of the important commodities of export from Bengal.[2] Early in the sixteenth century the Portuguese traveller Barbosa found Bengal competing with South India in the supply of sugar to different parts of India, Ceylon, Arabia and Persia.[3]

In the Periplus of the Erythrean Sea besides cotton goods the exports mentioned are malabathrum, Gangetic spikenard and pearls.[4] Some amount of cardamom, cloves, etc., were also exported from Bengal.[5] From Arabian sources, we know that Indian aloe-wood was produced in ancient Bengal.[6]

As regards animals and animal products, according to

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1. N. Ahmed, op.cit. p.103
2. Marco Polo II. 115.
3. Supra. p. 191.
4. Periplus, p.47.
5. Bangśīdāsa's Manasāmangal, Ed. D.Chakravarty. pp. 380-390.
6. E.D. I. 5; 14.

Medhatithi,[1] elephants were royal monopolies in the eastern part of India and private trading in these animals was prohibited and punished with confiscation of all the property of the offender. We may also refer to the testimony of Sulaiman and Masudi[2] that rhinoceros-horn formed a profitable item of export to China where it was made into fashionable and costly girdles. We learn from the same source that Ruhmi, possibly Bengal, produced 'samara' (yak-tail) probably referring to sanskrit camara, from which whisks were made with handles of ivory and silver.[3] It is not unlikely that besides the raw-material, goods manufactured from this samara were exported from Bengal.

It is possible that glass was extensively manufactured in India and particularly in Bengal. The hint of glass trade as given in the list of merchandise of Dhanapati by Kavikankan is sufficiently indicative of this.[4]

Some amount of sea salt might have been exchanged for rock-salt in ancient Bengal,[5] but it is doubtful that indigenous sea-salt had much demand outside the country.

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1. Medhatithi on Manu, VIII. 399.
2. Ferrand, I pp. 44, 105.
3. Ibid.
4. Kavikankan Candi, Vol. II. p.814.
5. Kavikankan Candi, Vol. II. p.814.

We now turn to the import trade. The paucity of horses in India towards the end of our period clearly follows from the testimony of Sulaiman, Ibu Al-Fakih and others.[1] The best breed of horses, usually came from parts of central Asia, Persia and Arabia and were sold at exorbitant prices in different parts of India. Towards the close of our period, horses appear to have been imported in large numbers into Bengal also. With reference to the town variously named as Karbattan, Kar-pattan or Karambatan, which has not yet been satisfactorily identified but was obviously located somewhere at the foot of the Himalayan range, the Tabaqāt-i-Nasiri[2] says: " - every morning in the market of that city about fifteen hundred horses are sold. All the saddle horses which came into the territory of Lakhnauti are brought from that country. The roads pass through ravines of the mountains, as is common in that part of the country. Between Kāmārupa and Tibet there are thirty-five mountain passes through which horses are brought to Lakhnauti." The import of horses can further be confirmed by the references

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1. Ferrand.I pp. 43, 104.
2. E.D : II. pp. 311-312.

in old Bengali literature.[1]

Bengal, especially Dacca, has always been famous for her fine workmanship in making shell-bangles. The conch-shells, which form the raw material for this age-old industry, seems to have been imported from the Madras coast, Ceylon and the Malay peninsula, as is done even now.[2]

Some amount of silk was produced in Bengal[3] but it is probable that it was first introduced in the country from China. The earliest references to silk are found in Buddhist scriptures and in the Arthaśāstra, where it is called Chiñapatta, "the Chinese cloth". In the second century B.C. the Chinese traveller Chang K'ien found that Chinese silk was imported into Bactria by way of India and this suggests that through the trade route which connected Puṇḍravardhana with South China via Kāmarupa, Bengal imported Chinese silk and then re-exported it to other parts of India and Afganisthan.[4]

Bengal possesses very little mineral wealth. Periplus refers to gold mines near the mouth of Ganges, and Sulaiman and Masudi say that there was gold and silver in Ruhmi. But it

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1. Kavikankan Candī, vol. II. p.814; V.S.P. p.326.
2. T.C. Das Gupta, op.cit. p.293.
3. J.R.A.S. 1895. p.523.
4. C.f. H.B. p.662.

is doubtful whether there were any gold or silver mines in Bengal. So it seems very likely that metal had to be imported from other parts of India and possibly also from outside India. There is no evidence of any copper mine in Bengal. ~~Neither do we have any proof that tin was produced in Bengal~~. Neither do we have any proof that tin was produced in Bengal or in any other part of India. These two metals are, however, needed to produce bronze, so Bengal must have imported these metals in order to be able to produce the wonderful specimens of bronze art. Similarly, gold, precious and semi-precious stones, used in the jeweller's art had to be imported. Pearls may have been imported to Tāmralipti from Ceylon.[1]

On the whole, the chief feature of the foreign trade of Bengal must have been a heavy export of manufactured goods. Raw materials for further manufacture abroad and agricultural products must also have figured in the country's exports. But from the point of value, exports must have exceeded imports, textile manufactures of all sorts forming the bulk of these.

Another characteristic of the trade of ancient Bengal was

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1. Legge, p.101; Periplus, p.47.

perhaps the presence of some amount of entrepot trade, which still persists though perhaps in a slightly different form. Silk, aguru and sandal from Kāmārupa, silk from China, pearls from Ceylon, spices, gold and precious and semi-precious stones from South East Asia, horses from Central Asia; were all brought into the towns and ports of Bengal, to be re-exported to different countries, presumably leaving a handsome commission in the process for the country.

TRADING CENTRES.

The chief trading centres of Bengal in these days were situated on the Ganges or its tributaries. Among these, by far the most important was Tāmralipti or modern Tāmluk, on the right bank of the river Rupnārāyaṇa, about twelve miles from its junction with the Hooghly. Its commercial importance depended upon the fact that it was easily accessible from the Ganges valley and as such, not only served Bengal, but whole of the Gangetic basin. The site is of great antiquity, for it is mentioned in the Great Epic.[1] It is referred to in the Mahāvaṁsa[2] as Tāmalita and was possibly meant by the

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1. Mahā. II.30.
2. Mahāvaṁsa, pp. 78-80; 128-129.

author of the Periplus[1] when he spoke of a great commercial city near the mouth of the Ganges. But the earliest dated reference to it is that contained in the Geography of Ptolemy.[2] The Greek geographer refers to the city as Tamalites and places it on the Ganges. A large number of coins, terracottas and pottery unearthed from the site of modern Tāmluk, show that this town had been in occupation from neolithic to modern times, with occasional breaks.[3] In the first and second centuries A.D., Tāmralipti seems to have shared with other ports on the Indian coast profitable trade relations with the Roman world, as is evident from a sprinkler and the roulatted ware which are believed to have originated in Rome.[4] The fame of Tāmralipti as an emporium, spread all over India and even far outside its boundaries. The Chinese pilgrim Fa-hien, when he visited India in 399-414 A.D., found it a maritime settlement of the Buddhists.[5] Two hundred and fifty years later, Hiuen Tsang notes that being situated on a bay it could be approached both by land and water and

1. Periplus, 47.
2. McCrindle, J.W., Ancient India as described by Ptolemy. p.168.
3. Indian Archaeology, 1954-55. pp. 19-20.
4. Ibid.
5. Legge, p.100

contained stores of rare and precious merchandise and a wealthy population.[1] Yet another traveller who followed Hiuen-Tsang thus wrote of the port : Tāmralipta is 40 yojanas south of the eastern limit of India. There are five or six monasteries; the people are rich.[2] In the days of all the three Chinese pilgrims, and of Daṇḍin, tha author of the Daśakumāracarita,[3] Tāmralipta was the place of embarkation for Ceylon, Java, China in the east and the land of the Yavanas in west. According to the Kathāsaritsāgara[4] also, Tāmralipta was pre-eminently the home of rich merchants, who carried overseas trade with Lanka and Suvarnadvīpa and used to propitiate the sea with jewels and other valuable articles to ensure safe voyage across. The same story is repeated frequently in the Manasāmaṅgal and Caṇḍīmaṅgal Kāvyas[5] of later times.

Sometimes, after the eighth century A.D. the port of Tāmralipti gradually lost its importance, on account of the silting up of the mouth of the river Sarasvatī and the consequent shifting of its course. Its place was eventually taken up by Saptagrāma or Sātgāon, higher up the river, which became later

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1. Beal records, II. 200-201.
2. Takakusu, I-Tsing XXXIII, XXXIV.
3. Ucchvasa VI, Mitraguptacaritam.
4. Kathā VI. 211; III.175.
5. T.C. Das Gupta, op.cit. pp. 30 ff.

on the medieval capital of south western Bengal.

In still later times (thirteenth century), Sonārgaon emerged as one of the important harbours of east Bengal. Situated on the banks of the Dhaleswari river, and close to the confluence of that river with Lakhia, the old Brahmaputra and the Meghnā, Sonārgāo occupied a strategic position and as such might have become an important centre of trade.

Chatigrāma corresponding to modern port of Chittagong in East Pakistan, does not appear to be mentioned in classical Sanskrit literature or inscriptions of an early date. But there are references to it in Tibetan chronicles[1] and in the account of Arabian writer Idris (12th century).[2] In 1443, Ibu-Batuta went to Chittagong and travelled from there in a ship to Java and then to China. From this, it is reasonable to infer that by the twelfth century A.D. Chittagong developed as a sea port in south-eastern Bengal.

Trade Routes.

From Tāmralipti, four principal routes of overseas trade

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1. For further reference see I.H.Q. XVI. p.228; J.A.S.B.1898. p.23.
2. C.f. D.C. Sen, Eastern Bengal Ballads. Vol.II. Introductory Chapter.

spread out. The first led in a south easterly direction past the coast of Arakan to Burma and beyond. Most of the early commercial routes from Tāmralipti to Java and Sumatra were in all probability directed along this line. The second route extended further and went up to Malaya Peninsula and further east. Ships came along the coast up to Paloura, near modern Chicacole, and then proceeded right across the Bay of Bengal. But by the seventh century A.D. ships plyed directly between Tāmralipti and the Malaya Peninsula.[1]
The third over-seas route went in a south westerly direction past the coast of Kalinga and Coromondal to south India and Ceylon. This route was known to have existed from a long time and was very much frequented by Bengali ships, for it is mentioned in a number of sources.[2] In the early years of the fifth century A.D. Fa-hsien embarked at Tāmralipti on board a big merchant ship and sailed to Ceylon en-route to China.[3] From the accounts of I-tsing, we learn that even as late as the seventh century, this was still the route for travellers.

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1. Takakusu. I-tsing pp.XXV., XXXIV.
2. Periplus 47; Jataka IV. Bk.12. 466. p.48; VI Bk.22.539 pp.19ff; Pliny - Ancient India, ;.103.
3. Legge, p.100.

proceeding to China from India and vice versa.[1] The fourth line of trade started from either Tāmralipti or the inland port of Saptagrāma and extended up to Pātān, a celebrated city in Gujrat, by crossing the Bay of Bengal, part of the Indian ocean and the Arabian sea. The voyage was most probably a coastal one and Ceylon, which stood midway between Bengal and Guzarat by sea-route is frequently mentioned in our sources.[2]

Apart from sea-routes, there was a number of land routes used in Bengal's foreign trade. One of these was the route which linked Puṇḍravarduana with Kāmārupa.[3] From there it seems to have extended further eastwards to south China through the hills of Assam or Manipur and Upper Burma. This is testified to by the itinerary of Kia Tan (785-805 A.D.). It describes the land route from Tonkin to Kāmarupa, which crossed the Karotoyā river, passed by Puṇḍravardhana, then ran across the Ganges to Kajangal and finally reached Magadha.[4]
More famous and frequented, however, was the line of trade which led westwards from various points in Bengal and joined the

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1. Takakusu - I-Tsing p.XLVI.
2. T.C. Das Gupta, op.cit. pp.30ff.
3. Beal records, II p.195.
4. R.C. Majumdar, Champā. pp. XIII ff.

network of highways meeting at Benares. This route was served both by roads and waterways. From the Kathāsaritsāgara and a number of Jātaka stories, we learn that merchants and traders travelled from Benares to Tāmralipti and from Pataliputra to Puṇḍravardhana along this line of trade. I-tsing, when travelling by road from Tāmralipti to Bodhgayā mentions that many hundreds of merchants accompanied him in his journey.[1] These western routes served not only travellers and merchants, but were used for military purposes as well.

Still another line of overland trade seems to have joined Bengal with Tibet and China through the mountain passes in the north. The author of Periplus of the Erythrean Sea seems to have known about this route when he mentioned about the import of silk goods into Bengal fromChina.[2] In later times, it was along this route that streams of Buddhist pilgrims poured into India from Tibet. This was also the route through which in later times, horses were brought into Bengal from central Asia.

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1. Takakusu I-tsing. XXXI
2. Periplus. p.48.
3. E.D. II. pp.311-312.

We have evidence of the existence of a fourth overland route connecting Bengal with south India along the Kalinga coast from the account of Hiuen Tsang.[1] But most probably trade with south India was carried more by sea than by land and the route above mentioned, was followed presumably primarily by different rulers at different periods, in their military campaigns.

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1. Beal records, II. pp.204 ff.

Chapter VI

REVENUE SYSTEM

The treasury is the repository of the physical wealth of a country. It is considered to be one of the seven elements of the state. Kauṭilya states that a king whose treasury is depleted preys upon his subjects and very rightly remarks that all undertakings depend upon the treasury.[1] Let the king and ministers therefore try to keep the treasury full. Almost all the writers on ancient Indian polity agree in emphasising this importance of treasury. The Mahābhārata[2] and the Kāmandakīya Nītisāra[3] both considered the treasury to be the source of kingly power. Thus we have

Rājñaḥ Koṣabalam mūlam kosamulam punarbalam

- "the treasury and the army are the root of kings; the treasury again is the root of the army"[4]

Koṣamulo hi rājeti pravādaḥ sarvalaukikaḥ

- "It is universal saying that the treasury is the root of kings"[5]

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1 Arthaś. text II.1.16 p.32; II.8.1 p.45
2 Mahā. Śānti parva. 80. 35 p.419.
3 Kāmandakīya Nītisāra XIII. 33.
4 Mahā. Śānti parva. 80. 35 p.419.
5 Kāmandakīya Nītisāra XIII. 33.

The unwinking vigilance with which the interests of the exchequer were safeguarded in ancient India was carried on in later centuries also. This is testified to by the available epigraphic sources in Bengal from 750-1200 A.D. which show that even small exemptions from taxation were invariably put on record. The minuteness with which revenue schemes are carefully worked out, is itself proof of the acute sensitiveness of an ancient state in Bengal to the interests of the fisc.

The principal means of filling the treasury is taxation. It is undoubtedly one of the main pillars upon which the fabric of an administration rests. As a source of revenue its importance in the economy of a country cannot be exaggerated. The ancient Indians were well aware of this. We find that in ancient India, some form of taxation existed from a very early period. The theories of taxation, however, were not highly developed in the Vedic period.

The earliest form of taxation in ancient India known to us was bali, which at first signified an oblation offered only to a God. Later on, it came to mean offerings to the king. It was however theoretically voluntary, though an expectation of reciprocity in the case of offerings to gods as well as kings may have been present, but it was not yet expressed. Nevertheless,

this bali, first offered as a voluntary contribution, became an economic obligation, and thus formed the starting point of the system of taxation.

The law-books and the Epics make a serious attempt to explain why the king was entitled to tax the people. In the Vedic period this was not a pressing question and it was accepted that king had the right, nay the power to levy taxes. One of the reasons put forward in support of this was that the king was divine. But this divine right of taxation did not gain universal approval. Its obvious weakness was that too many people claimed a divinity equal, if not superior, to that held by the king.

A far more significant claim, that dominated Indian theories of taxation was that the king was entitled to levy taxes by virtue of the protection he offered to the people. This idea is subject to various interpretations, but the central theme is always protection. E. W. Hopkins suggests that taxation was based on a system of barter or exchange.[1] The protection offered by the king was to be commensurate with taxation. In times of distress he would require more, because

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1 Journal of the American Oriental Society. volume XIII. pp.78-79.

the difficulty of protection was greater. To a certain extent this reasoning is valid, but it lays far too much emphasis on the barter idea. It cannot be proved from any available texts we have, that an exchange was made for security and wealth. The protection granted by a kṣatriya was a sacred duty - not something to be bought and sold at will. If it were merely an exchange basis upon which taxation was based, it would imply that the amount of protection received would depend upon the revenue given to the king. No author of Dharmaśāstra would have agreed to such a view. It would have meant, for example, that the blind, deaf, diseased and insane, among others, who required a greater degree of protection than normal persons, should have paid a proportionately higher tax in view of their disability. But the law-books advocated no such policy.

There is another theory somewhat similar to the previous idea. This is that the tax is simply the wage (vetanam) of the king - his reward for protecting his subjects, his remuneration for being the servant of the people and his salary as a public functionary.[1] There are many authorities, who

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1 Mahā. Śānti parva. 71. 10.

support this view. Thus Gautama justifies the king's levy of taxes on the ground that he is charged with the duty of protecting his subjects.[1] Baudhayana enjoins the king to protect his subjects with the sixth part(of their income or spiritual merit) as his pay.[2] Viṣṇu, while laying down the rules for the collection of taxes mentions that the king shares in one sixth of the spiritual merits and demerits of his subjects.[3] Nārada declares - bali sa tasya vihitaḥ prajā pālana vetanam - the king's revenue is his fee for the protection of his subjects.[4] Kauṭilya says that at the time of battle, the king should call his army together and address them saying - "I receive a wage like you, this kingdom is to be enjoyed togetherwith you, the enemy should be attacked by you at my request."[5]

On the strength of the above evidence and especially the above quoted passage from Arthaśāstra, Kāne thinks that the theory of the king being a wage earner or a servant of the state was actually put into practice, and that he did look upon himself as such.[6] But we think this view to be manifestly

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1 S.B.E.vol. II. chapter X, line 28, p. 227.
2 S.B.E. vol. XIV, part 2, 1.10.18, p.199.
3 S.B.E. vol. VII, 3.28, p.16.
4 ,S.B.E. vol. XXXIII, 18.48. p. 221.
5 Arthaś tr. 10.3.27, p.509.
6 P. V. Kane, History of the Dharmaśāstra vol. III, p.28.

false and contrary to the high esteem in which the king was usually held at this time. He was certainly not hired by the people. He provided the service of protection and for this he exacted payment. It seems more reasonable to interpret the above passage from the Arthaśāstra, as meaning that the king says in effect "I earn fees in the same manner as you do, - by the protection of the kingdom..." He was implying a relationship of function, and that taxes came to the king for the same reason that payments were made to the soldiers. There are very few references indeed, which can be interpreted to imply the king was in fact a servant of the people. Those passages, such as the one we have cited in the Arthaśāstra, which are capable of this interpretation are often so loosely worded, obscure or mistranslated that we feel no valid evidence exists from which we can deduce that the taxes of the king were his wages or that he was considered a servant of the people. The statement of the king was uttered for propaganda purposes. It shows that in certain circumstances ideas of popular monarchy were encouraged, even if they were not believed by the king and his court.

As to the general principles of taxation, a rule expressed in practically identical terms in the Mahābhārata[1] and in

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1 Mahā. Śānti parva. 87.17.

Manu,[1] declares that the taxes levied upon the subjects by the king should be mutually beneficial to both. Taxes must never be imposed suddenly with great increases over previous payments. "As the leech, the calf and the bee take their food little by little, even so must the king draw from his realm moderate annual taxes."[2]

Another metaphor is given by way of illustration in the Śānti Parva of Mahābhārata[3] A large tree must be cut down for use as a sacrificial stake. In cutting it down, other trees in its way must also be uprooted and these falling in turn, bring down yet more trees. The inference from this story is that anyone standing in the way of making a well-filled treasury, must be done away with. Yet, after much praise of wealth, even this section, concludes by saying that the treasury should never be filled by unrighteous practices. Indeed, the consequences for a king who attempted unjust extortion could be very hard. Kauṭilya points out that the people might migrate to another country or even wage war against the king as a protest against j unjust taxation.[4] Yājñavalkya declared that

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1 S.B.E. vol.25, VII.2.128.
2 S.B.E. vol.25, VII.129.
3 Mahā. Śānti parva. 133,40-42.
4 Arthaś 7.5.27.

such a king will lose his wealth quickly and be destroyed along with all his relatives.[1]

In emergencies, however, the people could be expected to pay extra and higher taxes. Manu allows that a king may take a quarter instead of the usual one-sixth, as long as he is governing righteously.[2] Kauṭilya lists a number of ways by which the king can obtain extra funds and is not very disturbed about the king's having recourse to false pretences and even assassination.[3] He recommends that the king should explain the necessity to the people, but if this does not bring in the required money, he may sell honours and positions, or if the danger is very great, take away the wealth of corporations, heretics or temples.[4]

In short, the fundamental principle of all taxation system - that wealth produced by the subjects is the source of state revenue - was fully recognised from an early period. The three most important principles were: -

1) that taxation should not destroy the substance of the people, but should leave ample margin for their subsistence.

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1 Yājñā. vol. II part II, chapter XIII verse 340.
2 S.B.E. vol. 25, 10.118.
3 Arthaś tr. 5.2.39-44, pp. 346-347.
4 Arthaś tr. 5.2.31-35, p.346.

2) that the taxes should be levied by slow, almost imperceptible degrees, and not all in a lump, and

3) that they should be levied at the time and place most suited for the subjects.

If we examine them closely we will find that the third principle agrees very much with the third of the 'classical' maxims enunciated by Adam Smith - "every tax should be levied at the time or in the manner in which it is most likely to be convenient for the contributor to pay it".[1]

Various sources of revenue are mentioned in the law-books and inscriptions. They testify to the existence of a complex system of taxation. Thus the Arthaśāstra differentiates between forms of revenue, not according to their incidence but according to their source.[2] These are the fort, the country, mines, irrigation works, forests, herds and trade-routes. Then again, Kāmandaka enumerates eight principal sources of revenue - agriculture, trade-routes, the Capital, water embankments, catching of elephants, working mines, levying wealth (from the rich) and founding towns and villages in uninhabited spots.[3] But if we carefully study the land grants issued in Bengal from 750 A.D. to 1200 A.D., and examine the exemptions from taxes

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1 Wealth of Nations, ed. by Rogers, vol. II, pp. 414-416.
2 Arthaś tr. 2.6,1, p.86.
3 Kāmandakiya Nītisāra, V, 78-79.

and dues that went with them, it becomes evident that the principal sources of income to the State were three - (a) the king's share of the produce of the land, (b) tolls and custom duties, and (c) fines and forfeitures levied from wrongdoers.

Among these, the first was undoubtedly the main source, for land has been the mainstay of the state during all periods of Indian history. That there was considerable scope for independent views in regard to the amount which should be taken from land, is shown by the difference of opinion among Indian writers. The rate varies from one-twelfth, one-tenth, one-eighth, and one-sixth in normal times, to as much as one-fourth and even one-third of the produce, in times of emergency. According to Manu, the amount of the land-tax might range from a twelfth to a sixth of the produce, the correct proportion being determined by the nature of the soil and the labour necessary to cultivate it.[1] The prescription of the Mahābhārata is one-sixth.[2] In the Jātakas, the rate seems to have been from one-twelfth to one-sixth.[3] According to Kauṭilya, the normal rate of land revenue is a sixth of the produce, but lower rates are admissible for lands which are not properly cultivated. "What is left over from sowing, farmers cultivating for half the produce should till,

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1 S.B.E. vol. 25, VII. 130, p.216.
2 Mahā Śānti parva. 71.10.
3 Jataka, vol. 2, 239, 276 & 378.

or those who live by personal labour (should work it) for a one-fourth or one-fifth share."[1] According to Nārada also, one-sixth of the produce of the soil forms the royal revenue. It is taken as the reward of the king for the protection of his subjects.[2]

Thus one-sixth was, according to our law-givers, the customary share of the king from the produce of the soil. Though we have no direct evidence in Bengal inscriptions of the proportion demanded in practice by the state, yet from the Baigrām[3] and the Pāhārpur[4] copper plates, which give to the king one-sixth of the religious merit accruing from the donation, we may assume that this proportion was the standard rate in ancient Bengal, though at certain other times it may often have been more. Moreover, an officer designated as Ṣaṣṭādhikṛta in the Khālimpur copper plate[5] of Dharmapāla, gives additional strength to this supposition. He was most probably an officer in charge of supervising the collection of this

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1 Arthaś, tr. II.24.16, pp. 172-173.
2 S.B.E. vol. 33, XVII, 48, p.221.
3 Select Ins. p. 342.
4 Select Ins. p.346.
5 G.L.M. p.9, verse 44.

one-sixth or sadbhāga of the grain share from the cultivators.

From the land-grants issued in Bengal from the Gupta period onward, which form our main source of information, we get very little direct evidence of taxation. But from the references to exemptions from different items of taxes and royal dues, to their transference to the donee, or to the granting of certain taxes while others were kept reserved for the donor himself, we can infer the existence of different heads of revenue known to this period. Just as in the case of customs and traditions, the meanings of these different revenue terms were not constant, they varied from place to place or time to time. For example, the same revenue term 'kara' might have conveyed various meanings and have been interpreted differently in different parts of Bengal at different periods or even at the same period. We have a valuable reference to this possibility in the commentary of Medhātithi, who observes that the various kinds of royal dues are known by different names in different countries.[1]

Thus it is not an easy task to clearly formulate a definite picture of the different items of revenue imposed from time to

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[1] Medhātithi on Manu. "baliprabhrtīnī rājaggrāhya - karanāmāni deśabhede supamānavakavat prasiddhāni."

time in ancient Bengal. In the numerous inscriptions ranging from the middle of the fifth century to almost the end of the 12th century A.D., we come across some fiscal terms no doubt, but they seem to be repeated in most records in a conventional manner and are rarely accompanied by such details as might help us in rendering their meaning less doubtful and controversial. Nevertheless, these terms when compared to similar terms found in the land-charters of different rulers of India and also in the law-books, at least throw some light on some of the sources of revenue in ancient Bengal.

Inscriptions prior to the 8th century A.D. give us very little information on the different items of taxation current in Bengal at this period. Most often these are not ordinary royal grants of lands made to Brāhmanas or dedicated to God, but are a kind of sale deeds recording the state confirmation of land sale transacted between governments and purchasers.[1] Even then, in some of these at least , we find the term

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1 Exceptions to this general pattern may be found in:
A) Gunaighar C.P. of Vainyagupta, I.H.Q. vol. VI, p.40.
B) Jayanāga Ghoṣa's Vappaghosavāṭa C.P., E.I. XVIII, p.60.
C) Tipperā C.P. of Lokanātha, E.I. XV, p.301.
D) Ashrāfpur C.P. of Devakhaḍga, Memoirs of the Asiatic Society of Bengal, No. I, p.85.

Samudayabāhya,[1] (rent free or not yielding any revenue to the state) or Samudayabāhya ...pratikara,[2] (for which no compensation is to be paid by the state), among the terms and conditions of the grant. In other words, the king when selling the land is making it completely tax-free. In this way the king is making a donation of the land, while receiving payment for its sale at the same time. It is only in this light that we can consider these sale-deeds as grants also, and explain why the king was entitled to one-sixth of the spiritual merit accruing from the donation.

Nevertheless, the existence of numerous taxes in this period is testified to by the term Samudayabāhya - though we cannot specify the different items of taxation from which the purchaser of the land received exemption from the king. There was tax on cultivated as well as on homestead lands, but possibly untilled fallow lands were exempted from any such tax.[3] In spite of the fact that the king was selling the land at a price fixed by the state, one-sixth of the spiritual merit of the purchaser, when donating the land,

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1 Baigrām C.P. Inscription. Select Ins., p.342.
2 Pāharpur C.P. Inscription. Select Ins., p. 346.
3 Vaidyadevas Kamauli Inscription. E.I. II, p.347.

should go to the king. Many of the inscriptions emphasise this point.[1] From this we may infer that the usual rate at which lands were taxed at this period was also one-sixth. Besides this, we get indirect evidence of other sources of revenue in the mention of salt pits, forests, markets, ferry-ghāts etc. in these records. According to Kauṭilya[2] salt-pits and forests were monopolies of the state and those who were allowed to work on them had to pay a regular tax to the king for them. Similarly, the state also derived some income from ferries and markets. Thus it appears that besides the one-sixth grain share, there were other sources of revenue as well in this pre-Pāla Bengal.

But in one particular inscription[3] there is a slight variation in the sense that there the applicant Mahārāja Vijayasena, after going through the necessary official procedure, and paying the price of land, receives the land but subject to the condition that the usual dues in respect of it would be borne by him and credited to the revenues of the Vīthi. Having in this manner obtained the right of ownership

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1 Baigrām C.P., Select. Ins., p.342.
Pāharpur C.P., Select Ins., p.346.
Faridpur C.P., of Dharmāditya, Select Ins., p.350.
2 Arthaś tr. 2.12.28, p.125; 2.17.1, p.148.
3 Mallasarul C.P. Inscription of Gopacandra, E.I. vol. XXIII, p. 155.

from King Gopacandra, he next transferred it to the donee Vatsasvāmin. From the above instance, it is perhaps not unreasonable to conclude that the lands transferred from the crown by sale-deeds were not always revenue free. At least in some cases, the purchaser took upon himself the responsibility of paying the different revenues due to the king, before he could donate the land to some Brāhmana or religious institution.

Coming next to the epigraphic records from the eighth to twelfth century A.D. and belonging to the Pāla and Sena rulers and their contemporaries, we find that almost all their land-grants which are made with regard to whole villages and in favour of Brāhmanas or religious foundations, usually mention in clear terms the different items of revenue from which the donee was exempted.[1] In connection with the various terms and conditions of the grant, the residents of the donated land are ordered to pay to the donee the following specific taxes, besides others not mentioned. In the Khālimpur copper plate Inscription of Dharmapāla these are daśāpacara, Kara and Pindaka.[2] In the Munger copper plate Inscription we find

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1 But strangely enough in the land-grants of Laksmana Sena and his successors, there are exceptions to this general rule. These grants do not mention the different royal dues from which the donee was exempted separately. Instead the usual term is akincitpragrāhya. (exempt from all dues).

2 G.L.M., p.9, Sl. 53 & 55.

Uparikara, Daśāparādha and Cauroddharanah.[1] From the reign of Nārāyaṇapāla onwards, bhāga-bhoga-kara-hiraṇya, sometimes with little variations, appear almost universally in the inscriptions to denote the taxes and dues which the king used to receive from a village. Generally speaking they are included in the list of dues which the resident cultivators are directed to pay to the donee.[2]

But in some of these grants these revenue items are assigned in general terms to the donee.[3] Most of the revenue terms we have discussed so far belonged to the first source of revenue - land. For the second source - tolls and customs duties - we have only indirect references in our inscriptions in the mention of different officers who probably supervised their imposition and collection. Besides these, Cauroddharana and daśāparādha were two important sources of state income, because they are mentioned in almost all the land-grants of Bengal during the period 750-1200 A.D. To the above list, one of the Pāla land grants further adds the item "ratnatraya sambhoga"[4] One scholar takes it to be a fiscal expression which seeks to condition, among other of its kind, the rights and privileges

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1 G.L.M., p.33. Sl. 39 & 40.
2 Khālimpur C.P. Inscription of Dharmapāla, G.L.M., p.9.
3 Barrackpur C.P. of Vijayasena, I.B, p.57.
Belāva C.P. of Bhojavarman, IB, p.14 etc.
4 Manahali C.P. Inscription of Madanapāla, G.L.M., p.147.

accruing to the donee.[1] But Ghoshal suggests that it was a tax levied upon the villages for the maintenance and upkeep of the Buddhistic faith, which was followed by the Pāla kings.[2] Additional weight is lent to this contention by the fact that the term also occurs in the No. 2 Ashrāfpur copper plate inscription of Devakhaḍga, where 6 pāṭakas and 10 droṇas of land were granted to the Buddhist monastery of Saṃghamitra.[3] But though the term ratna-trāya might literally refer to the three gems of the Buddhist faith - in the absence of further corroborative evidence, it is difficult to say whether the term indicated an item of income or a liability to the state.

We next turn our attention to the four most common items of revenue during the period under study - bhāga, bhoga, kara, hiraṇya and try to find out their possible interpretations. But once again it should be borne in mind that these terms though known to ancient literature and law-books, are recorded in most inscriptions in a conventional manner and their meaning might have varied to a considerable extent in different regions of Bengal at different periods of its history.

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1 R. K. Ghosh in E.I. XXVII, p.122, fn.7.
2 H.R.S., p.297.
3 M.A.S.B., vol. I, No. 6, p.85.

Out of the compound word bhāgabhogakarahiraṇya, bhāgabhogakara has been given different interpretations by different scholars. Kielhorn[1] and Ghoshal[2] accept the term as a single expression and explain it as the usual share of the king in grain. On the other hand, in the opinion of A. S. Altekar, the term should be split into two, bhāgakara being the land tax and bhogakara, in theory, consisting of miscellaneous small taxes paid in kind to the king every day, but in practice usually assigned to local officers.[3] Fleet suggests that the term bhāgabhoga may perhaps be considered as one fiscal expression, meaning, "enjoyment of taxes" for its literal meaning is enjoyment of shares.[4] His interpretation might be correct with regard to some of the references, where the rights and privileges accompanying the village granted are enumerated. But it would certainly not suit cases where it is mentioned along with other specific dues and objects which the cultivators residing in the village

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1 EI, vol. VII, p.160.
2 H.R.S., p.214.
3 A. S. Altekar, Rāstrakutas and their times, pp.214-16.
4 C.I.I., vol. III, p. 254, fn.4; ibid, p.120, fn.1.

are ordered to bring to the donee.* Moreover in the Khālimpur [1] and Munger copper plate[2] inscriptions, there is mention of only kara in place of the more common bhāga-bhoga. In the inscriptions of Candra, Varman and Senas again, the term bhāga is mostly omitted. But surely, all the above mentioned royal grants must have carried with them exemptions from the king's share in grain and other things as well. From this we may deduce that perhaps in this period bhāgabhoga did not always mean 'enjoyment of shares'.

Here, it may be pointed out that the compound word bhāgabhogakara is not known in this form to the literature of the Smṛtis nor is it used as a single revenue term in the Arthaśāstra, although each of the constituent elements of the compound was separately well-known. So in our opinion it is better to seek separate interpretations for the three distinct terms. D. C. Sircar explains bhāga as the royal share of the produce, and bhoga was the periodical supplies of fruits, firwood, flowers etc., which the villagers had to furnish the king.[3] A. N. Bose suggests that bhāgabhoga

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* For example: 1) Bāngarh C.P. Inscription of Mahīpāla I, G.L.M., p.91.
2) The Manahali grant of Madanapāla, G.L.M., p. 147.

1 G.L.M. p.9.
2 G.L.M. p.33.
3 Select Ins. Vol. I, p.372 fn.

are two taxes. The first refers to the regular share of the king in grain. But the second is to be identified with the bali of early times and is to be assessed at one-fourth of the remainder.[1] Arthaśāstra of Kauṭilya also mentions bhāga with bali, kara etc. under the title rāṣṭra, which includes the tax of one-sixth or ṣaḍbhāga with bali kara, etc., under the same general heading.[2] In this case bhāga undoubtedly means the king's customary share of the produce, normally, though not universally, amounting to one-sixth.

Besides this, the term bhāga appears in the Arthaśāstra to mean other taxes of a similar nature. We have thus in the Arthaśāstra the term udakabhāga, meaning the water-tax.[3] Though many of the grants made during this period included rights over water, it is, however, doubtful if Bengal, which is a riverine country and gets plenty of rainfall throughout much of the year, ever needed large scale artificial irrigation organised by the state and also whether thiswater-tax was ever imposed in Bengal. Neither does the term udakabhāga occur in any of the extant inscriptions.

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1 A.N. Bose, Social and rural economy of Northern India, vol. I, p.126.
2 Arthaś. tr. 2.6.3, p.87. 2.15.3, p.140.
3 Arthaś. tr. 2.24.18, p.178.

Another example of the technical use of bhāga occurs in the Arthaśāstra, where we have the term lavanabhāga, meaning the king's share of the salt which is levied from manufacturers, probably working under state licenses.[1] Though not mentioned in any of the Pāla or Sena inscriptions, salt was an important source of income to some of the kings of southern Bengal, especially those who had kingdoms near the sea. This can be inferred from the mention of salt in the Irdā plate of Kāmboja rāja Nārāyaṇapāla,[2] Rāmpāl[3] and Dhulla[4] copper plates of Śrīcandra, Belāva copper plate of Bhojavarman,[5] and the Chittagong copper plate of Dāmodara.[6]

Turning our attention next to the term bhoga, we find that different scholars have tried to explain the term in different ways. R. J. Tripāthi had suggested, but without any supporting evidence, that bhoga referred to the rights that the landlord enjoyed when the land was left fallow or to the use of waste and taking of grass etc.from the field, when the cultivators' crops had been removed.[7] South Indian inscriptions[8]

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1 Arthaś tr. 2.12.27, p.125.
2 E.I. volume XXII, p.155.
3 IB, p.5.
4 Ibid., p.165.
5 Ibid., p.21.
6 Ibid., p.58.
7 IHQ, vol. IX, p.128.
8 E.I, vol. III, pp. 123, 245; vol. XIII, p.34; vol. XV, p.22.

often describe villages and lands granted as accompanied by the Aṣṭabhōgas, but their number and nature often vary from one to another. Moreover, they were also in the nature of privileges and rights and thus do not fit in with most of the grants belonging to our period, where the villagers are ordered to bring bhoga along with other dues and objects to the donee. So in our opinion, the interpretation of the Bühler that bhoga means the periodical supplies of fruits, firewoods flowers and the like which the villagers had to furnish the king is a better explanation of the term.[1] In practice, however, these contributions might have been enjoyed not by the king himself, but his officersin the particular district or division in which the land was granted. In Manu-Smṛti the word bhoga is used in a slightly different form.[2] Medhatithi and Kulluka read it as pratibhāgam, while Sarvajña Nārāyaṇa and Rāghavānanda treat it as pratibhogam. Still another commentator Nandanācārya takes it to be prātibhogam. The first two terms practically mean the same thing and agree with Bühler's interpretation of the term bhoga. Prītibhoga would however denote the contributions known as prītidāna and levied on particular occasions.[3] These were contributions from the

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1 E.I., vol. I, p. 75 fn.2.
2 S.B.E., vol. 25. VIII, 307; VII, 118.
3 S.B.E., vol. 25, footnote to VIII.307.

subjects, disguised as gifts, which were extorted from time to time by the kings.

The name of an officer mentioned as bhōgapatika in pre-Pāla records[1] and as bhogapati or bhogapatika in the land grants of the Pālas, Senas, Varmans and their contemporary rulers[2] leads us to think that possibly he was entrusted with the task of supervising the collection of this particular item of revenue. Kielhorn, however, interprets the term bhōga as equivalent to bhukti and thinks that bhogapatika was an officer in charge of the administration of a province.[3] D.C. Sircar, on the other hand, thinks that he may be identified with bhogika or bhogapāla, meaning an officer connected with the stable.[4]

Another form of revenue frequently mentioned in the epigraphic records is kara. It is found either as a separate word or as the third element in the compound word bhāgabhogakara. As a designation of fiscal term, although it was little known to early Vedic literature, it came to be used frequently in the law-books and literature of later times. But it had varied uses and as a consequence the same term has been interpreted in different ways at different times. Thus there are many instances where kara is used in the most general sense of tax.

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1 Mallasarul C.P. inscription of the time of Gopacandra, Select Ins., p.360, verse 4.
2 G.L.M., p.9. I.B. p.68, 80, 92, 149, 14.
3 E.I. vol. IV, p. 253, fn. 6.
4 Select Ins., p.360, fn.9.

For example, Amarakośa[1] and Vaijayantī[2] identify Bali, bhāga and kara as common designations of the land tax. Thus in the Khālimpur,[3] Munger[4] and Kāmauli[5] copper plate inscriptions, kara seems to be the main tax, because in them we do not find mention of either bhāga or bhoga. It is almost certain therefore that, in these grants at least kara signified the general land tax, and, when contrasted with hiranya would seem to be the revenue paid in kind. This point becomes more clear in the last mentioned grant of Vaidyadeva, where the donee is said to be exempted from karopaskara. Moreover, if we accept the interpretation of the term bhāga as "periodical supplies of flowers, fruits etc..." we must also accept kara as meaning the usual land tax. For, in most of the post-Pāla grants the term bhāga does not occur at all. Instead, we find the term kara immediately following the term bhoga - rājabhogakarahiranya-pratyāyasahita. In one particular inscription[6] it is rāja-bhogayakarahiranya - literally taxes in kind and cash enjoyed by the king.

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1 Amara 8.28, p.18.
2 Vaijayantī, p.107, 45.
3 G.L.M., p.9.
4 Ibid., p.33.
5 E.I., vol. II, p.347.
6 Naihāti C.P. Inscription of Ballalasena, I.B., p.68.

But when found in the compound form, a different interpretation is needed for the term kara. An examination of earlier sources reveals many divergent opinions on its meaning. The different commentators on Manu[1] give different interpretations to the same term. This is shown by the following examples as - gift of commodities (MedHātithi), a fixed gold payment on land (Sarvajñanārāyaṇa), contributions in the form of grass, woods etc. (Rāmacandra), contribution from villagers and townsmen either monthly or at Bhādrapada and Pauṣa (Kulluka) and a monthly payment by villagers (Rāghavānanda). Thus we see that there is no unanimity among the different commentators on Manu and each had his own explanation to offer for the same term. Nevertheless, the interpretations offered by the last two seem to be more probable, because they are, more or less, corroborated by Bhattasvamin's interpretation of the term in his commentary on the Arthaśāstra.[2]

Not being satisfied with this meaning, the modern translators of Arthaśāstra try to find a more precise meaning of the term. Thus according to Shāmaśāstry, kara is a tax paid in money.[3] But in another context he refers to the same term

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1 S.B.E., vol. 25, VIII, 307.
2 Commentary on Arthaś II.15. J.B.O.R.S. XI, part III, p.83-84.
3 Arthaś, Shamasastry (tr.), p.58.

as meaning "taxes or subsidies that are paid by the vassal kings and others".[1] The second explanation may be correct in some of the references, but it would certainly not suit the land grants of our period, whereby only a village or part of it is donated by the king. Kāngle seems to agree only with the first view of Shama Śāstri.[2] In the opinion of D. C. Sircar, kara was a tax to be paid over and above the grain share.[3] R. C. Majumdar, on the other hand, thinks it to be the name of a general property-tax levied periodically.[4]

It is indeed difficult to find the true meaning of the term kara among these different and rather confusing explanations. But it is most probable that in cases where it appears as a word in the compound bhāgabhogakarahiranya, it can neither be translated as the usual land revenue, nor as a contribution in gold or cash. In these instances, it might have been a periodical tax over and above the grain share. But in land grants where it is mentioned without bhāgabhoga or only with bhoga it must be a land tax and might even be identified with the usual grain share of the king.

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1 Arthaś, Shāmasāstry (tr. II.15, p.99.
2 Ibid., tr. Kāngle. II.63, p.87. fn.3.
3 Select Ins., vol. I, p. 372, fn. 7.
4 H.B. p.277.

Hiraṇya is another revenue term found almost universally in all the land grants of the Pālas, the Senas and their contemporaries. Many scholars have tried to explain the term in a general way to mean "a contribution in cash". Among them Kielhorn translates it as payment in money,[1] while Vogel tries to interpret it in the sense of a tax in cash.[2] Kangle in his translation of the Arthaśāstra supports the same view.[3] But there are still others, who take the term in its literal sense and translate it as tax in gold or gold coins.[4] But the following arguments can be advanced against this:-

1) In most of the land-grants hiraṇya is found with bhāga-bhogakara, the king's usual grain share. From this we think it is reasonable to infer that hiraṇya belonged to a group of taxes relating to the king's grain share, which was paid in kind.

2) Neither can hiraṇya be taken as a tax on gold mines as suggested by Beni Prasād.[5] In spite of the mention of different kinds of ornaments and other commodities made of gold in both epigraphic and literary sources, we must presume that the metal itself was imported from outside Bengal.

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1 E.I. vol. VII, p.61.
2 Vogel, Antiquities of the Chamba State, pp. 167-69.
3 Arthaś (tr.) 1.19.12, p.52.
4 Bühler in S.B.E. vol. II, p.277; Jolly in S.B.E. vol. VII, p. 16; R. D. Banerjee in E.I. vol. XIV, pp. 324, 330; N.G. Majumdar in Inscriptions of Bengal, III, pp.8, 24, 67, 79 etc.
5 Beni Prasād, State in Ancient India, p.302.

Moreover, the term is found in inscriptions from almost all parts of India. It is, however, extremely unlikely that there were as many gold mines.

3) Lastly it is extremely improbable that a state in ancient Bengal drew part of its normal revenue from gold "whether as a tax on the accumulated hoard of the metal or a tax on the income estimated in gold currency",[1] especially when we know that after the fall of the Guptas, gold currency became extremely scarce in Bengal and none of the Pāla or Sena rulers is known to have issued any gold coins. We have considerable evidence to prove that during the rule of the Sena kings small transactions were carried out by means of cowries only while the revenues were assessed in terms of Purāṇas or Kapardaka purāṇas. But so far no specimen of this coin has been found. Thus the whole idea of hiraṇya being a tax in gold paid by ordinary cultivators seems to be unjustifiable.

Another interpretation is offered by N. C. Banerjee, when he says that "it was a tax on the hoard or capital or the annual income", which means that it was a sort of income tax.[2] But it appears to be highly improbable that in such a remote period

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1 H.R.S., p.61.
2 N.C. Bandyopadhyaya, Kauṭilya I, pp. 139-40.

of Bengal history, taxes on individual income were assessed and collected regularly. Moreover, as his view is not corroborated by other facts, it may at best be regarded as a mere guess.

From the above it can be concluded that hiraṇya was used in the inscriptions in the conventional sense of cash. Ghoshal has rightly pointed out that, though most of the land revenue in ancient India was assessed in kind, there were certain classes of crops which were assessed in cash on the grounds that it was very difficult to divide them into shares.[1] Probably hiraṇya was a tax of this nature, imposed only upon certain special kinds of crops, as opposed to the tax in kind, which was charged upon ordinary crops.

In the Mallasarul grant[2] we find mention of an officer who seems to have been connected with this particular kind of revenue. He is known as Hiraṇyasāmudayika. Altekar[3] and Majumder[4] think that he was the officer in charge of the collection of taxes in cash. Dr. B. C. Sen, however, thinks that he was an officer collecting all kinds of revenue - both in money and in kind.[5] Although we cannot say anything about

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1 H.R.S., pp.61-62.
2 E.I., XXIII, p.159 ff.
3 A. S. Altekar, State and government in Ancient India, p.148.
4 H.B., p.277.
5 B. C. Sen, Some historical aspects of the Inscriptions of Bengal, p.498.

the preceding period, it is clear from the Sena inscriptions that land revenue at this time was assessed mostly in cash. In each of these inscriptions, the amount of land revenue to be realised from the different villages or plots of land is worked out in minute detail, though there is no way of ascertaining either the rate or the medium of collection. Not a single purāṇa or Kapardaka purāṇa has been found so far, and so we are still in the dark as to the amount of revenue levied on particular plots of land at this period. In the Govindapur Copper plate Inscription of Lakṣmaṇa Sena, we find that the income from one droṇa of donated land amounted to fifteen purāṇas.[1] But the evidence of the Sāhitya Pariṣad Copper plate Inscription of Viśvarūpasena proves that the income from plots of land of similar measurement was not the same even in the same locality.[2] This was perhaps due to the difference in the amount of crops and other things produced in the different plots of land and consequently the revenue from each of these must have varied greatly.

Another very rare fiscal term found only in the Khalimpur copper plate Inscription of Dharmapāla is Piṇḍaka.[3] Its exact

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1 I.B., p.92.
2 I.B., p.140.
3 G.L.M., p.9.

nature is not known. Possibly it can be identified with the Pindakara of the Arthaśāstra.[1] According to the commentator Bhaṭṭasvāmin this was a tax imposed upon a village as a whole. The prevalence of this practice in Bengal is testified to by almost all the Sena inscriptions, which mention the annual revenue calculated in cash for whole villages, often in minute details. But the same term has been identified by Kielhorn with bhāgabhogakara[2] and by Ghoshal with hiraṇya.[3] Bühler, however, interprets the term as found in the inscriptions of Nepal, in the sense of assessment only.[4] It is not an easy task to find the true meaning among these divergent opinions. Yet, to us the first interpretation seems to be more probable.

Uparikara is still another fiscal term connected with the tax on land and found in many inscriptions of the period under study. Fleet[5] and Ghoshal[6] think that the term might have a similar meaning as the Marathi word upari or upri and interpret it as a tax levied on a cultivator not belonging originally to a village, but residing and occupying land in it, either upon a lease for a fixed number of years or at the pleasure of

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1 Arthaś, tr. 2.15.3., p.140 fn.3.
2 E.I., IV, p.24 fn.
3 H.R.S., pp. 244-245.
4 I.A., vol. IX, p.163.
5 C.I.I., vol. III, p.98, fn.1.
6 H.R.S., p.210.

the proprietor. But this interpretation unfortunately rests on very uncertain grounds, since the Marāthi language was of much later origin and it is rash to draw conclusions from such feeble linguistic evidence. L. D. Barnett connects the term with the crown's share of the produce.[1] But in almost all the Pāla and Sena grants, where the term occurs along with bhāga or kara, which more probably imply the standard royal share, this interpretation cannot stand. In Sanskrit the term upari means 'upon' or 'extra' and this has led D. C. Sircar to explain it as extra-cess.[2] Perhaps it was an extra tax charged over and above the land revenue. The oppressive character of this impost is testified to by certain inscriptions from Assam. Thus the grants of Ratnapāla[3] and Indrapāla[4] include uparikara and are among the oppressions from which the donated land is exempted. In another grant,[5] Auparikara, perhaps the officer charged with the above mentioned tax, is mentioned in the list of king's servants who were not to enter the land granted. From the above it becomes clear that uparikara was an additional tax imposed over and above the ordinary taxes and was considered to be an

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1 J.R.A.S., 1931. p.165.
2 Select Ins., vol. I, p.266, fn. 5.
3 J.A.S.B. 1898, p.99.
4 Ibid. 1897 p.113.
5 ~~C.P. Inscription of Balavarman~~, J.A.S.B., LXVI, 285; Kamarupa Śasanāvali, p.71.

oppressive one.

Let us now turn our attention to the second source of revenue - tolls and customs duties. These were undoubtedly related to trade and commerce. The second plate of Dharmaditya mentions Gopālasvāmin as a customs officer.[1] (Vyāpāra Kāraṇḍya Gopālasvāmin). According to Pargiter this officer used to control trade and probably also levied taxes andcollected state dues on merchandise from traders and merchants.[2] In Still another grant, that of Gopacandra of the 6th century, refers to a similar kind of official.[3] When uparika Nāgadeva was ruling, Vatsapāla was appointed as vyapāra viniyuktaka (an officer to regulate trade) in Nāvyavikasika in the province of Vāraka. In the Pāla records an officer whom we often meet is the Śaulkika, mentioned along with the high officials of the state.[4] Most probably he was in charge of collecting śulka. Manu explains the term in the general sense of duties paid by merchants.[5] According to Ghoshal, the term has a non-technical as well as a narrower technical sense.[6] According to the former interpretation

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1 Select Ins., vol. I, p. 354, line 5.
2 Ibid., fn. 7.
3 Ibid., p.357, lines 5-6.
4 G.L.N., p.16, line 46; p.39, line 23; p.96, line 35 etc.
5 Manu, S.B.E., vol. 25, VIII, 307.
6 U. N. Ghoshal, Beginnings of Indian Histiography and other essays, p.175.

śulka is a general designation for tax. The narrower technical sense of the term is best illustrated by standard lexicons, which define it as meaning ferry dues, tolls and customs duties.[1] Kauṭilya, however, used the term to cover a wider field of taxation, comprising duties levied upon articles imported into the city, port dues, customs collected by ferrymen and boundary officials, duty upon mining products, duty upon imported salt and duty upon animals intended for slaughter.[2] Thus according to Kauṭilya, śulka consisted of taxes on certain specified commodities as well as charges levied upon all kinds of imported goods. But it should be distinguished from ferry-dues and market-dues, atleast in our period, because in the Khālimpur copper plate Inscription of Dharmapāla, though the Śaulkika is mentioned in the list of officials, the Ṭarika finds a place separately.[3] This signifies the fact that the charge for the collection of ferry dues was entrusted not to the Śaulkika, but to the other officer. Similarly, the Haṭṭapati (Lord of the Market) of the Rāmagaṅ copper plate Inscription of Iśvaraghoṣa was most probably entrusted among other duties, with the task of collecting market dues.[4] It is interesting

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1 Amara. 8.28, p.181; Abhidhānacintāmani, III, 338.
2 Arthaś. tr. Shamaśastry II.22, p. 124ff.
3 G.L.M.,p.9.
4 I.B., p.149.

to note, however, that the officer known as Śaulkika, though found in most of the Pāla land grants, is totally absent from the inscriptions of the Sena kings. What does this omission signify? Perhaps an explanation to this query can be found in the gradual decline of trade and commerce and the increasing reliance upon agriculture after the fall of the Pālas in Bengal.[1]

We can indirectly infer the existence of another tax during the Pāla and Sena rule, from the name of another official mentioned in the copper plate grants of the period - Gaulmika.[2] Ghoshal suggests that he was probably a collector of customs duties.[3] But if Śaulkika and Gaulmika were both customs officers, we fail to understand why they were separately mentioned in the Pāla records. The word gulma in Sanskrit means a wood, a fort or a guard of soldiers.[4] Apparently Fleet accepts the first meaning when he translates Gaulmika as superintendant of woods and forests.[5] He might also have been an officer in charge of a military squadron called gulma, and consisting of 9 elephants, 9

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1 Supra, p. 160.
2 G.L.M., p.16, line 46; p.39, line 23.
3 I.B., p.21, line 34; p.63, line 28.
3 H.R.S., p.246.
4 M. Williams, A Sanskrit English dictionary.
5 C.I.I. vol. III, p.52, fn 4.

chariots, 27 horses, and 45 foot soldiers.[1] In the absence of any other corroborative evidence, it is therefore extremely difficult to say whether gulma formed another item of revenue in the period under survey.

Besides the taxes above mentioned, there were certain others, which formed the third source of revenue to the royal treasury. These were in the nature of fines and forfeitures levied from wrongdoers. Most of these were in a way indirect taxes imposed upon villagers and which were transferred along with the direct taxes bhāgabhogakarahiraṇya to the donee by the king. One of the most common among these was cauroddharaṇa ("uprooting of thieves").[2] This term again has been given different meanings by different scholars. The earliest reference to a similar revenue term, as far as we know, occurs in the Arthaśāstra - Cora rajju.[3] It has been translated as fees or tax payable by the villagers for protection against thieves. But in most of the inscriptions it is found in the form of cauroddharaṇa. Not satisfied that the Arthaśāstra's form is the same as that in the Pāla inscriptions many scholars have tried to give their own interpretation to the term. Thus R. D. Banerjee thinks it to be a

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1 M. Williams, op.cit., p.560.
2 G.L.M., p.97, verse 44; I.B., p.5, line 25, etc.
3 Arthaś. 2.6.3. p.91.

"right of extirpation of robbers".[1] Vogel on the other hand translates it as "the special privilege of prosecution of thieves" conferred upon the donee[2]. Still another scholar believes it to be police protection[3]. But if we carefully analyse the term and especially the context in which it occurs in the land-grants ranging from the beginning of the eighth century to the end of the Sena power in Bengal, it becomes clear that none of theseviews can stand the test of independent evidence. None of these scholars seem to realise that their explanation of the term would be quite extraordinary in a land grant, especially in one made to some pious Brāhmana with the intention of acquiring religious fame. As U. N. Ghoshal rightly points out, "There is no evidence to show that transfer of civil jurisdiction was ever contemplated as possible in respect of the pious grants of land".[4] Though the village council enjoyed some power to deal with minor offences at this period, yet it would be a mistake to think that jurisdiction over criminals cases was ever transferred to these local bodies, so early in the history

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1 E.I. XIV, [illegible] p.330
2 Vogel, Antiquities of the Chamba state, p.129.
3 N. G. Majumdar, Inscriptions of Bengal, vol. III, p.8.
4 H.R.S., p.211.

of Bengal. The ultimate responsibility of protecting the subjects from thieves and robbers still rested with the king, but probably the people had to pay some sort of tax for it, and in our opinion this was known as cauroddharaṇa. When granting a piece of land or a whole village, the king gave the donee the right to enjoy the proceeds from this tax also, and so the term cauroddharaṇa came to be included in almost all the Pāla and Senaland grants. Thus it was much the same as the cora-rajju of the Arthaśāstra.

Another of these fines and forfeitures was the very common revenue item daśāparādha[1] or daśāpacāra.[2] It is found in almost all inscriptions of our time.* It was Fleet who first attempted to explain the term and according to him it involved the donee's right to the proceeds of fines for committing ten offences by the villagers.[3] B. C. Majumdar believes that the term implies the donee's right of jurisdiction over the offences concerned.[4] But this view seems to be unjustifiable on the same grounds mentioned above, against regarding cauroddharaṇa as a special privilege for the prosecution of thieves. There is no authority for the supposition that the grant of

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1 G.L.M., p.97, verse 44; I.B., p.102, line 39, etc.
2 G.L.M., p.16, verse 53; G.L.M., p.61, verse 42, etc.
3 C.I.I. vol. III, p.187 fn 4.
4 J.B.O.R.S. 1916. p.53.

* In the Manahali grant of Madanapāla (G.L.M. p.154) the term appears in a slightly different form - saṅarasapaṣāra, which seems to be just a mistake on the part of the engraver.

right of jurisdiction was ever thought of in the case of holders of pious endowments. Thus, as suggested by Ghoshal, the term possibly stands for a kind of income accruing to the king from fines levied on villagers.[1] There is some difficulty in the identification of the ten offences. Fleet took them to consist of three specified sins of the body, three of the mind and four of speech.[2] Jolly[3] preferred to connect them with a list of ten chief crimes mentioned by Nārada.[4] Still another scholar, Hiralāl,[5] identified them with a list of ten sins mentioned in the Sukranīti.[6] But Beni Prasād, justly pointing to the improbability of offences of the mind, could be made the subject of legal punishment, interprets the term in the sense of judicial fines in general.[7] The proceeds from these fines originally went to the royal treasury, but when donating a piece of land the king usually transferred the right to these to the donee. But this practice must have undergone a change during the rule of the Sena kings and their contemporaries. The term found in most of their inscriptions is not sadaśāparādha but sahyadasa-parādha, which is usually translated as "with toleration of

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1 H.R.S., pp. 295 ff.
2 C.I.I., vol. III, p. 189, fn 4.
3 Hindu Law and Customs, pp. 70, 268.
4 S.B.E., vol. 33.1.11.
5 E.I. vol. IX, p.47, fn. 1.
6 Sukranīti, III, 6. tr. B.K. Sarkar, Allahabad 1914.
7 Beni Prasād, The State in Ancient India, p. 303 ff.

the ten sins".[1] In our opinion, the term in these cases refers to the right of the donee to be exempted at least in part from the ordinary penalties for the commission of some traditional offences, ordinarily known as daśāparāda. The above sense exactly explains the clause sahyadaśāparādha (toleration of the ten sins) found in post-Pāla land grants.

A number of miscellaneous other sources of revenue are found in the epigraphic records of our time. Of these market-dues was an important one. Literary as well as epigraphic sources, frequently refer to market-places situated in important cities and villages of ancient Bengal. Thus we learn from Kathāsaritsāgara, that Puṇḍravardhana had a great market place.[2] The No. 2 Dāmodarpur copper plate inscription mentions a haṭṭa or market in connection with the purchase of a plot of land.[3] The Irdā plate, similarly mentions the grant of a village along with the market-place.[4] The Bhāṭera plate speaks of shops (haṭṭiya gṛha) and big markets in some of the donated villages.[5] That some form of revenue from these markets was realised during this period is clearly indicated by the Khālimpur copper plate inscription,[6] which

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1 I.B., p. 87, line 39; p.112, line 44-45 etc.
2 Kathasaritsagara, Tawny (tr.), p.86.
3 E.I. vol. XV, p.133.
4 E.I., vol. XXII, p.155.
5 E.I. vol. XXII, p.158.
6 G.L.M., p.9.

records the grant of four villages along with their haṭṭikā, a term translated by Kielhorn as market dues.[1] The officer in charge of collecting this particular item of revenue was perhaps known as Haṭṭapati.[2] Ferry-dues were another source of income to the state and the officer in charge of supervising the collection of this revenue was perhaps known as Tarika.[3] Still another item of revenue at this period was salt, which Kauṭilya regards as a state monopoly.[4] It figures prominently in some of the inscriptions of Bengal, especially those belonging to the southern region.[5] From this it can be reasonably inferred that the state derived considerable revenue from its manufacture. Otherwise, there would be no sense in mentioning salt specially, when transferring the different royal rights to the donee. But, surprisingly enough, salt is not mentioned in any of the Pāla or Sena land grants. Thus it might be said that the manufacture of salt, though known and practised in certain parts of Bengal especially in the south, had not yet developed into an important industry and possibly did not form a source of revenue in the Pāla and Sena empire.

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1 E.I. vol. IV, p. 254 fn. 5.
2 Rāmaganj C.P. Inscription of Iśvaraghoṣa, I.B. p.149.
3 Khālimpur C.P. inscriptinn. G.L.M. p.9.
Manahali C.P. inscription of Madanapāla, G.L.M. p.147.
4 Arthaś, Text II, 12.28, p.57.
5 E.I. XXII, p. 155; I.B. pp. 2, 5, 58. ~~p.2; I.B. p.58~~.

Another source from which large sums of money came regularly to the royal treasury during the period was betel-leaf, areca and cocoanut plantations. For example the Calcutta Sāhitya Parisad Copper plate of Viśvarūpasena mentions in minute detail that the income derived from the donated lands included those collected from areca and betal leaf plantations (baraja) also.[1]

Lastly, from the Belāva copper plate Inscription of Bhojavarman we come to know of an officer whose designation was Piṭhikāvitta.[2] Piṭhikā is the diminutive form of Piṭha, which in Sanskrit means a stool, a seat, a religious institution or a seat of learning. As we find the officer in the above mentioned inscription placed between the Purohita and Mahādharmādhakṣya - both high dignitaries in religious matters - it seems probable that he was also an important official connected in one way or other with religion. Perhaps he was an officer in charge of superintending the wealth of temples and monasteries. R. C. Majumdar is of the opinion that "he was probably an officer connected with the arrangement of seats in an assembly or the royal court according to the rank and status of their occupiers".[3] But to us he seems to have

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1 I.B., p.140.
2 Ibid., p.21 ff.
3 H.B., p.288.

occupied a far more important position, because of the fact that he is mentioned so high on the list of officers. B. C. Sen, however, thinks that he was perhaps an officer entrusted with the task of collecting "some kind of state dues from visitors to sacred places or from income accruing to religious institutions".[1] But Sen's interpretation is very vague and based on slender grounds. Though we know that some form of pilgrim tax was known to other parts of India at this period, it is indeed very doubtful whether a particular ruler in Bengal would have tried to enforce it, especially when we do not know of a single other instance where this tax was imposed in Bengal.

From the above analysis, it is clear that there were several impositions over and above the customary one-sixth of the grain share, in the period under study. A number of questions naturally come to our mind. How did the poor cultivators manage to pay so many taxes in any given year? Was the system of taxation oppressive in our period?

The principles set forth in the Arthaśāstra and early and medieval Dharmaśāstras were no doubt noble and beneficial

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1 B.C. Sen, Some historical aspects of the inscriptions of Bengal, p.552.

to the cause of the people in general. It is not unlikely that some of the kings of ancient India tried to live up to these ideals. But unfortunately there is very little material in our period from which we can deduce whether these ideals were always put into practice in Bengal. How far the kings of ancient Bengal followed these rules and regulations is a matter of conjecture only. Most probably, like other rulers of India, they tried to translate them into action and not to burden their subjects with excessive demands for taxes. It is possible that the bhāga-bhoga, kara, hiraṇya, piṇḍaka, uparikara etc. did not always imply different impositions. They might have been repeated in the different inscriptions of our time in a purely conventional manner and many of these might have conveyed almost the same meaning, for it is difficult to imagine the poorer citizens paying all these taxes out of their income every year.

There is however, one reference in Rāmacarita, to oppressive taxation. We are told that Varendrī was oppressed with cruel taxation before Rāmapāla reconquered it from the third Kaivarta ruler Bhīma.[1] But it difficult to accept this view at its face value, because, firstly, as is well known, the author Sandhyākaranandī's main aim in writing the book was to eulogise

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1 R.C. III, verse 27, p.66.

Rāmpāla and in doing so he has painted the Kaivarta chiefs in dark colours. Secondly, it is hard to reconcile the above statement with his very flattering description of the riches and strength of Bhīma's kingdom in a preceding chapter.[1] The evidence of Rāmacarita in this particular reference thus gives only a one sided view and therefore cannot be accepted as true.

Another reference to a forced loan during the reign of Ballālasena is found in Ballālacarita. There we find the king demanding a loan of one and a half crore of suvarṇas from one Vallabhānanda, the richest merchant of his time, in order to conquer the king of Udāntapura. But once again it should be borne in mind that like "many other similar works composed in the sixteenth and seventeenth century A.D. Ballālacarita was written definitely with a view to demonstrating that the suvarṇavaṇika occupied a high status in society and were unjustly degraded to their present position by the capricious tyranny of Vallālasena".[2]

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1 R.C., II, verses 21-27.
2 Quoted from History of Bengal, vol. I, pp. 240-41.

Chapter VII

COINAGE

Coinage reflects to a great extent the prosperity or otherwise of a country's trade, industry and commerce, and also its relations with other states. We cannot claim a rich and regular system of coinage for ancient Bengal and the few extant pieces have so far been utilised mainly as sources for political history. But a careful analysis of the coinage system at different stages of her history reveals some interesting features in her economic conditions.

The definition of coin and the process of its evolution have been given by Charles Theodore Seltman[1] in the following words:

> "Metal when used to facilitate exchange of goods is currency; currency when used according to specific weight standards is money; money stamped with a device is a coin. Metal intrinsically valuable, weight deliberately adjusted, the mark or device of a responsible authority, all three are needed to make a coin."
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> Mankind first learnt to value, next to weigh and last of all to stamp metal; or in

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1 Charles Theodore Seltman, Greek Coins, p.1. London. 1955.

other words, evolved from barter to metallic currency, abandoned mere currency for money, and then mere money for coinage."

Most probably, like the rest of the world, the economy that prevailed in the early period of Bengal's history was one of barter, as we may gather from numerous references in literary sources. It continued to be practiced at least up to the early part of the mediaeval period and barter trade was often carried on with foreign countries. In this form it was known in literature as badal-vānijya.[1] Thus the Manasā mangal and Caṇḍī mangal kāvyas provide ample references to the barter trade carried on in areca nuts.[2]

A further step forward was made when different units of value were evolved. The objects that were taken as mediums of exchange in that system no doubt varied in the different stages of development of the society. Thus in the hunting stage, probably all economic transactions were carried on by means of hunting weapons or skins of animals hunted. But as the hunting stage passed on to the pastoral, and animals were domesticated, the animal itself became the object of value.

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1 T. C. Dasgupta, op.cit., pp.313 ff.
2 Ibid., p.268 ff.

A common feature of the primitive economy among most people belonging to this stage was that wealth was measured in cattle. The cow or ox gained such a stronghold on the mind of man as a unit of value that it left its distinct mark even on the metallic currency when the latter was evolved. A bronze talent belonging to the fourteenth century B.C. has been unearthed from Mycenae which is cast exactly in the shape of a cow hide after the head and tail have been cut off.[1] Even as late as the fourth century B.C. the rectangular copper blocks, which constituted the earliest Roman coinage, were cast with the figure of an ox upon each to indicate its value. The Latin word for cattle was pecus; this was the origin of the common word for money ← pecunia.[2] There is also evidence from other countries of the ancient world to show that the cow or ox unit was similarly adopted as the standard to which all metallic currencies were adjusted. Thus C. J. Brown observes "The Greek Stater and the Persian Daric certainly, and probably the Indian Suvarna, so frequently mentioned by Sanskrit authors, was the value of a full grown cow in gold, calculated by weight."[3]

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1 I.H.Q., XXXVIII, p.112.
2 J. H. Breastead, Ancient times, p.501. Boston 1914.
3 C. J. Brown, The Coins of India, p.13.

That the cow was considered to be a standard of value in ancient India is proved definitely by many references in Vedic literature. From a Ṛgvedic hymn, we come to know that an image of Indra was sold for ten cows.[1] The Aitareya Brāhmaṇa again refers to the purchase of Sunaḥsepa from his father for one hundred cows.[2] The name of the sacrificial fee - dakṣiṇā is explained as referring originally to a cow placed "on the right hand" of the singer for his reward.[3] We have numerous references in the literature of the period to show that the cow held an important position as a medium of exchange in ancient Bengal also. It is noteworthy that, even as late as the fifteenth century, Raghunandana,[4] the noted Bengali jurist, assigns in the Prāyaścittatattvam the formost place to the cow in point of sanctity as a gift to a priest. Next in order of preference comes cowries, then copper and last of all silver or gold.

In addition to cattle, a number of agricultural products, especially paddy and rice, must also have served as media of exchange in ancient Bengal. In the Rājatarangiṇī[5] the expression

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1 Ṛgveda IV, 24.10.
2 Aitareya Brāhmaṇa V, 22.9.
3 Quoted from Cambridge Hist.of India, vol. I, p.99.
4 Prāyaścittatattva, op.cit., pp. 123-24.
5 Rājat, vol. II, p.313.

dinnārojjāmacīrikā occurs side by side with dhānyojjamacirikā, denoting respectively a bond of debt for cash and a bond of debt for grain. It also mentions that sometimes salaries of government servants were paid in khāris of rice as equivalent to dīnāras. What was true of Kashmir, must have been true of contemporary Bengal also, for even now in the remote parts of many a Bengal village, ordinary people do not have much money to spend. They generally take bags of paddy to the weekly market (hāṭ) and exchange them for articles like salt, kerosine oil and other necessities of life, usually not obtainable in the locality. Hired daily labourers are also often paid in kind in the shape of rice or paddy.[1] From this it may reasonably be inferred that this system of exchange must have prevailed in the Bengal of ancient times.

But the difficulties arising out of exchange transactions through non-metallic objects are many and these must have made themselves felt more and more as the community expanded and human needs gradually widened. In the present stage of our knowledge it is, however, not possible to trace this transition from a non-metallic to a metallic system of exchange, nor to discover definitely when and by whom metal coins were first

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1. Personal knowledge.

introduced in Bengal. It is certain, however, that they were known and used several centuries before the beginning of the Christian era. This is proved by three concurrent pieces of evidence.

The first and the most valuable evidence in this regard is furnished by the discovery of a large number of silver and copper punch-marked coins, mostly dating back to pre-Christian epoch. The term 'punch-marked' implies that "the devices on the coins are impressed, not by means of a die covering the face (flan) of the coin, but by separate punches applied irregularly at various pints of the surface".[1] The exigencies of an expanding economy perhaps prompted the issue of metal coins and so it is very likely that the initiative in the matter might have been taken by the merchants themselves. Thus in the opinion of V.A. Smith all the punch-marked coins were originally specimens of private coins "issued by guilds and silversmiths with the permission of the ruling powers. The numerous obverse punches seem to have been impressed by the different moneyers through whose hand the pieces passed and the reverse marks may be regarded as the signs of approval by the controlling authority."[2] Large

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1 C.C.I.M.p.132.
2 Ibid., p.133.

numbers of these punch-marked coins have been discovered in various parts of Bengal in the neighbourhood of Beracampa in the 24 parganas,[1] in the Māndā in Rajshahi district[2], in the highland close to the river bed at Tāmluk in the Medinīpur district[3] and in the Wari bātor and Sābhar area of the Dacca district.[4] Recent excavations in West Bengal have also yielded large quantities of these coins[5]. It is generally held that these coins represent the earliest coinage of Bengal, as perhaps also of many other parts of India, and that they served for centuries the commercial needs of the people. The symbols punched on these coins closely resemble those found on others of this type and in other areas, a fact which clearly points to the close trade relations which Bengal had with the rest of India. It is also significant from these coins that Bengal followed the main currents of general Indian economic life.

Secondly, there is a clear reference to coins being in use before the Christian era in the Mahāsthān Brāhmī inscription.[6] From this inscription, which is assigned on paleographic grounds

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1 A.S.I. 1922-23, p.109.
2 Ibid., 1930-34, p.255.
3 Ibid., 1921-22, p.74.
4 Annual report of the Dacca Museum, 1935-36, p.5.
5 A.S.I. 1955, p.63.
6 E.I, XXI, p.83; I.H.Q., X, p.57.

to the third or second century B.C., we gather that some ruler of the Maurya period, if not of the Mauryan family, had issued an order to the Mahāmātra of Puṇḍranagara with a view to relieving the distress caused by famine to the people called Saṃvaṃgīyas, who were settled in or about the town. Of the two measures adopted to meet this contingency, the first was probably an advance of a loan in coins known as gaṇḍaka to Galadana who presumably was the leader of the samvangīyas. This is made clear from the latter part of the inscription, where a wish is expressed that with the restoration of profusion and affluence, the people should return the coins to the treasury. Thus we definitely know that a coin known as gaṇḍaka was in circulation at that time. It is known to be a small piece of the value of four cowries[1] and so if it was a metallic coin, it must have been one of a very small denomination. Most probably it was a nominal coin or a coin of account only, which was paid not in metals but in cowrie-shells. From the similarity in the terminology, we can possibly connect this coin with the one known as gaṇḍā in ~~the~~ later Bengali mathematical works, where it is one-fifth

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1 E.I., XXI, p. 87 . ~~fn~~.

of a pice.[1] B. M. Barua[2] and R.C. Majumdar[3] hold that besides gaṇḍaka the above inscriptions contains a reference to another coin - the kākanika - which is also found in the Arthaśāstra as a fraction of the copper kārṣāpaṇa.[4] It was equal to 20 cowries and thus a coin of larger denomination than the gaṇḍaka. Due to the broken plate the reading of kākanika is not certain. Moreover, if it was there it should have been placed before and not after gaṇḍaka.

Again, the Periplus of the Erythnean Sea records that a gold coin known as caltis, was in vogue in the market town of Gange at about the first century A.D.[5] In the opinion of the editor of the Periplus this coin may be identified with the coin known by the name of Kallais in South India. But as not a single specimen of this coin has been found it is difficult to say anything definitely on this point. Recently, a gold coin discovered from the ancient site of Tāmralipti (modern Tāmluk) was identified by P. C. Dasgupta[6] as possibly an example of the caltis referred to in the Periplus. Though the finding place of the coin might correspond to the site of the ancient port of Gange, unless we have further corroborative

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1 S. K. Chakravarty, A study of Ancient Indian Numismatics, p.56.
2 I.H.Q., X, p.57 ff.
3 H.B., p.664.
4 Arthaś tr. Shamasastry, p.95.
5 Periplus, p.47.
6 Proceedings of Indian History Congress, vol. 16, p.68.

evidence, it is not possible to accept this identification. In our view, most probably, this unique piece was a 'Ganga fanam' and not a caltis .[1] If more specimens are found in future from this site, it would definitely point to the economic connection between south-western Bengal in our period and Orissa under the rule of the famous Gangā dynasty.

A few gold coins of the Kuṣāṇa kings have been discovered in different parts of Bengal; but there is nothing to show that they were used as a medium of exchange within the country. It is a known fact that coins travel by way of trade far beyond the limits of the kingdom where they are issued, and so these gold Kuṣāṇa coins might have come to Bengal by way of trade or with pilgrims or in the trail of an invading army. In the territory under the direct rule of the Kuṣāṇa emperors, gold currency was linked with copper, but strangely enough until recently not a single copper coin issued by them had been discovered in Bengal. But recently excavations carried out in Tāmluk in west Bengal have brought to light certain copper coins of the

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1 For further discussions see J.N.S.I. XXI, p.76.

Kuṣāṇas also.[1]

With the establishment of the Gupta empire, Bengal shared in the currency system introduced and maintained by that dynasty. For the first time in its history Bengal came to possess a regular currency system and coins of gold and silver circulated freely in the country. These two types were known as dīnāras and rūpakas respectively.[2] Gupta gold coins of many types and varieties have been discovered in Bengal. This definitely proves that gold coins at this period were minted and circulated as currency. But because of their high purchasing power they cannot have been regularly used for small transactions. They were largely hoarded as precious metal and were melted down and used as jewellery for the richer section of the society.[3] Yet the numerous land grants of this period definitely prove that the ordinary people were familiar with gold coins, for in each case it is mentioned that the persons desirous of purchasing land for donation had to deposit the price in the local record-keeper's department, in the form of gold dīnāras.[4]

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1 Proceedings of Indian History Congress, vol. 16, p.68.
2 Baigram C.P., E.I., XXI, p.81.
3 A. S. Altekar, Coinage of the Gupta Empire, pp.366, 357, 367.
4 Three hoards of Gupta coins, a) Kalighat, b) Hugli, c) Jessore.
4 Supra, pp. 150 ff

The term dīnāra is derived from the Latin denarius aureus and although we have reference to silver and copper ones in the Rājataraṅgiṇī,[1] they perhaps do not apply to northern Bengal under the Guptas. As far as available evidence goes the word dīnāra denotes only gold coins at that time, but it is possible that in the past-Gupta period the word was used "in the sense of any kind of coined money or even cash, thus ceasing to be the description of any particular monetary value".[2]

The extant specimens of Gupta coins prove that the earlier gold coins of the dynasty followed the standard of their Kuṣāna prototypes[3] and the weight of those of Candra-gupta I and Samudragupta agree well with the weights of the late Kuṣāṇa coins of the third century A.D. They generally vary between four to six grains and although there appears to be very little effort to strike them on a uniform weight standard, the average of 121 grains might have been the current standard of the time. Out of this amount, 107 grains are pure gold and the rest alloy. During the time of Kumaragupta I when the Dhānaidaha,[4] Baigrām[5] and Dāmodarpur[6]

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1 Rājat. Vol. II, pp. 308 ff.
2 Bhandarkar, Lectures on Ancient Indian numismatics, pp.204 ff.
3 A. S. Altekar, Coinage of the Gupta Empire, p.295.
4 E.I., XVII, p.346.
5 E.I., XXI, p.81.
6 E.I., XV, pp.130 ff.

copper plates were issued, the standard of 121 grains becomes rare and that of 127 grains becomes popular.[1] His gold coins generally vary from 117 to 128 grains and his silver ones from 23.8 to 36.2 grains.

But towards the end of the reign of his successor Skandagupta, whose coins have been found in different places in Bengal,[2] the gold coin becomes heavier, reaching an average of 144 to 146 grains, while the gold content decreases to about 70 grains only.[3] Thus although the later Gupta coins weighed more than those issued earlier, the percentage of gold in them gradually decreased, especially after the later part of the reign of Skandagupta. The earlier Gupta coins followed the Kuṣāṇa weight standard, while from the time of Skandagupta onwards a deliberate attempt seems to have been made to revert to the old suvarṇa standard of Manu[4] consisting of 80 rattis or 144 grains. The debasement of the gold coins might have been due to the bad politico-economic situation created by the invasion of the Hūṇas and the ceaseless trouble over the royal succession after the death of Kumāragupta I,

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1 A. S. Altekar, Coinage of the Gupta empire, p. 296.
2 J.N.S.I., VII, part I, p.13 (1945).
3 A. Cunningham, Coins of Medieval India, pp.15-16.
4 Manu VII, 134.

The silver coins of the Gupta Emperors were struck with considerable variations in weight, but those circulating in the eastern provinces of the empire seem to have approximated to the standard weight of silver kārṣāpaṇas, i.e. 36 grains.[1] This silver coin was known as rūpaka, though copper[2] and gold[3] rūpakas are known to have been current in other parts of India. Concerning the rate of exchange between a dīnāra and a rūpaka we get valuable information from the Baigrām copper plate[4]. The epigraph records the purchase of land at the price of 6 dīnāras for 3 kulyavāpas and 8 rūpakas for 2 droṇavapas in area, the customary price in that locality being 2 dīnāras for each kulyavāpa. As has been pointed out in the section on land measurement[5], one kulyavapa was equivalent to 8 droṇavāpas in area. It thus follows that the rate of exchange between a dīnāra and a rūpaka was 1:16.

This equation, however, does not agree with the ratio furnished by Nārada[6] and Bṛhaspati,[7] for according to them

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1 J. Allan, Catalogue of the coins of the Gupta dynasties, P. C XXXIV.
2 Arthaś tr. II, 12.24. p.124.
3 Rājat, vol. I, VI, 45, p.239.
4 E.I., XXI, p.81.
5 Supra, p. 122.
6 Nārada. app. 56-60.
7 Bṛhaspati, VIII. 9-10

48 kārṣāpaṇas or silver coins equal one gold coin. In other words, 1728 (36 x 48) grains of silver were equal to 124 grains of gold and therefore one grain of gold was equal to 13 to 14 grains of silver.* But in the Gupta period 576 (36 x 16) grains of silver are equal to 124 grains of gold. Therefore one grain of gold was equal to about 4.63 grains of silver. If this be the case the silver kārṣāpaṇa of Nārada and Bṛhaspati must be a coin of lesser denomination and should be distinguished from the rūpaka of the Baigrām inscription. Again according to another source 1 dīnāra was equal to 28 rūpakas. Thus it is clear that the ratio between a dīnāra and a rūpaka was not a fixed one and it varied from time to time and place to place. Yet, on the basis of inscriptional evidence, we can at least assert this much that during the reign of Kumāragupta I the ratio was 1:16 in the northern part of Bengal.

In addition to these metallic coins there were many other media of exchange, the most important of which were

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* I have followed Allan in taking 36 grains = 1 rūpaka.

cowries. These were in use for a long time and employed mainly in internal markets and for small transactions. The use of cowries as a medium of exchange in this period is attested to by the account of Faehien.[1]

After the decline and downfall of the Guptas, their immediate successors, while following in the main the traditions of Gupta gold coinage, seem to have altogether given up the practice of minting silver coins. This is evident from the fact that while not a single silver coin of any of these rulers has been discovered, a large number of gold coins of ~~Sasanka~~, Jaya (Nāga), Samācā (deva) and Śaśānka have been found in different parts of Bengal. "These coins however, although conforming to the weight of the later Gupta coins, are in most cases debased in metal content and inferior in style and execution to those of their prototypes".[2] Thus the gold coins of Śaśāṅka are of varying degrees of purity. In some of the gold content is about 58°/o, in others it is much less. Some of his coins are of copper plated with gold. Although the majority of his coins are issued to the Suvarna standard of 80 rattis or about 144 grains, a few weigh only 85 grains.[3]

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1 Legge, p.43.
2 H.B., I, p.667.
3 A. S. Altekar, Coinage of the Gupta empire, p.328.

Jayanāga also issued some gold and gold-plated coins. The weight varies from 132 to 139 grains. They are also heavily adulterated. One of his coins which was tested had only 34°/o of gold.[1]

A fairly large number of rude imitations of Gupta gold coins have come to light in the Bogura, Tipperah, Dacca and Faridpur districts of East Pakistan. The find-spots of these coins as well as their association with these of Samācaradeva and Śaśāṅka in some finds, show that the rulers who issued them held sway in eastern Bengal, probably after the death of Śaśāṅka. The heaviest of these coins weighs 92.5 grains and the lowest 75 grains. Most of these are heavily debased and according to Bhattasali[2]. among the coins of this type discovered at Sābhār, at least three stages in the process of debasement can easily be discerned. This heavy debasement of the gold coins in post-Gupta times might possibly be explained by the forces of disorder and confusion rampant on all sides in the country after 450 A.D. The process began by Skandagupta could not be checked and as years progressed, gold coins were debased

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1 Catalogue of Coins in the British Museum No. 614.
2 J.A.S.B., N.S. 1925, pp.1-6.

more and more. After the seventh century gold coins became extremely rare. We have just one specimen of a gold coin belonging perhaps to the Deva dynasty from Maināmati.[1] These rulers seem to have come to power not long after the Khaḍgas, as suggested by the style of writing on their inscriptions and coins, which bear close resemblance to the later Gupta script.

It was probably during this period of anarchy and confusion that cowries, which are known to have been in circulation during the Gupta period[2] established themselves as the only dependable medium of exchange in the country. "A people who had for centuries been accustomed to minted currency, could not be suddenly expected to revert to barter: and as the State failed to discharge its normal functions in the matter of coinage, and as the tradition of private coinage was long forgotten, there was hardly any alternative to the use of cowrie shells, which were known to have been in circulation in some other parts of India."[3]

At the end of the matsanyāya, when political stability was re-established under the able rule of Dharmapāla and

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1 F. A. Khan, Maināmati, p.25.
2 Legge, p.47.
3 H. B., p.667.

Devapāla, an attempt appears to have been made to re-introduce minted currency. But this attempt seems to have been confined to the issue of silver and copper coins, for not a single gold coin belonging to the Pālas has so far been discovered. There is no mention of it even in contemporary literature. Recently Ajit Ghosh claimed to have discovered an unique gold coin, which he assigned to Devapāla.[1] But as pointed out by himself, the coin "does present some enigmas" notably the reverse inscription 'Śrī' and the unusual weight of 180.5 grains. Moreover, the honorific suffix 'deva' attached generally to the names of all Pāla kings is absent on the coin. Lastly, he does not even mention the find-spot of the coin. The above facts make it difficult for us to accept this as a genuine coin issued by Devapāla.

In view of the long rule of the Pāla dynasty and the extent of its kingdom, it is indeed difficult to explain this lack of gold currency and the scarcity of any other kind of minted currency. We learn from the Silimpur inscription, assigned to the 11th century A.D., that a Brahmana of Varendrī, was offered nine hundred gold pieces by Jayapala, king of Kāmārupa.[2] Some scholars take this as indicating

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1. J.N.S.I. Vol.13, P.123
2. E.I., XIII, 295.

that gold coins though scarce in the Pāla empire, were in circulation in the neighbouring kingdom of Kamarupa. But no coins of Jayapala have yet come to light. Moreover, the inscription does not mention the name of the coin. Hāmānam, therefore, can mean just gold pieces or the weight of the Brahmana in gold.

It is however not unlikely that the large number of old gold coins struck during the Gupta period, mainly to meet the demands of foreign trade, continued to be in circulation till the twelfth century and made it unnecessary for the Pālas and their successors to issue new ones. Besides, in view of the cheapness of the commoditiss in the period, when cowries were sufficient for daily transactions, the gold coins would have been very high in value and would not have been ordharily needed. The demand for langer transactions like inter-state and foreign trade must have been met by the gold coins of the earlier period still in circulation. Again the feudalisatinn of the state structure, which is one of the characteristiss of this period, certainly eliminated much of the need for higher denominations of coins, which in earlier periods were required for land transactions, external trade etc. Perhaps payments in the form of jāgirs of land gradually began to replace the system of direct payment from this time onwards. Thus the Bāngarh copper

plate of Mahipāla I[1] contains a reference to the grant of 200 measures of land which had been formerly granted to the Kaivarttas for their services.

A number of silver and copper coins, tentatively assigned to the early Pāla empire, have been found in Bengal and Bihar. Three copper coins of a unique type "showing a clumsily depicted bull on the obverse and three fishes on the reverse" have been found at Pāhārpur. From some places in Bengal and Bihar another variety of silver coin known as the Śrī Vigra type has also been discovered. Cunningham did not identify those found at Ghosrawa in Bihar as Pāla coins, but as those belonging to the Raghunvamśa family of Bhojadeva.[2] On the other hand, V. A. Smith[3] was of the opinion that the coins with the legend vigraha or vi" may be assigned with almost positive certainty to one or other of the kings of Magadha named Vigrahapāla". He attributed the finer specimens of this type to Vigrahapāla I and the debased ones to the second or third ruler of the name. Cunningham's main objection in attributing these to the reign

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1 EI, XIV, p.324; G.L.M., p.91.
2 Cunningham, op.cit., p.51.
3 C.C.I.M., vol. I, p.233.

of Vigrahapāla of the Pāla dynasty was that these types were not found anywhere in Bengal. But the discovery of one copper coin with a similar inscription at Pāhārpur seems to eliminate this objection. These silver coins were perhaps known as dramma[1] referred to in the Mahābodhi inscription of the 26th year of the reign of Dharmapāla.[2] The epigraph mentions the construction of a tank at the cost of 3,000 silver drammas. The Edilpur copper plate of Keśavasena[3] also contains a reference to dramma. The term originated from the Greek drachma, the weight of which was approximately 67.5 grains. Those attributed to Vigrahapāla, however, weighed about 52 to 58 grains only.[4] S. K. Chakravarty holds that the Greek term drachma was originally used by the Indians, and only subsequently was it changed to the Indianised form of dramma[5]. According to Bhandarkar the Kārṣāpana of Kauṭilya's table "must evidently stand for silver coin and is probably another name for dramma".[6] The Mahābodhi inscription refers to silver drammas, but the copper dramma discovered at Pāhārpur suggests that, besides

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1 B. C. Sen, Some historical aspects of the inscriptions of Bengal, p.570.
2 G.L.M., pp.32 ff.
3 I.B., p.118.
4 C.C.I.M., vol. I, p.251.
5 J.N.S.I., XVII, pt. II, p.65.
6 Bhandarkar, Lectures on ancient Indian numismatics, pp.206 ff.

silver, there were also copper ones current in Bengal. But it is not possible to arrive at any definite conclusions on this point unless a few more specimens of the latter come to light. But the existence of silver coins during this period is proved from another source. Recent excavations at Mainamati have yielded a hoard of 52 silver coins of three denominations. Another hoard consisting of 172 silver coins of the largest denomination only has been discovered from the same site.[1] These are all of the Bull and the Triratna type. On palaeographical grounds these coins are assigned to the seventh and eighth centuries and they were most probably issued by some kings earlier than or contemporary with the Pālas in Eastern Bengal. F. A. Khan holds[2] them to be coins of the Devas while Dr. Dāni[3] would like to attribute them to the Candras and connects them with the eight Candra coins found at Sylhet.[4] But we know from the copper plates belonging to the rulers of the Candra dynasty that their capital was Vikrampura. The

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1 F. A. Khan, Mainamati, p.25.
2 Ibid., p. 25
3 J.N.S.I., vol. XXIV, parts I and II, 1962, p.141.
4 Numismatic Chronicles and the journal of the Royal Numismatic Society, London, XX, 1966, pp. 229-233.

legend Paṭṭikera, inscribed on some of the Mainamati coins, however, suggests that they were issued not from Vikrampura but from Paṭṭikera. In spite of all these facts, the discovery of such a large number of silver coins at Mainamati is of great significance. It is the first big hoard of silver coins found in Bengal and thus disproves the view held for so long that besides gold coins, Bengal also suffered from a paucity of silver coins in the period under review. The number of these coins and their associations, find-spot and other evidence strengthen the view that these were issued locally by a sufficiently powerful and prosperous dynasty of independent rulers and not imported from Arakan, as was generally assumed hitherto.

Among the Maināmati coins, there are two specimens of extraordinary interest - a gold and a silver coin with legends in Kufic characters.[1] They were issued by the Abbasid caliphs of Bagdad. The silver coin belongs to the early Abbasid period. Unfortunately, it was found in a damaged condition and the portion bearing the name of the ruler and the mint are missing. The gold coin, however, is in a very good state of preservation and the inscription

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1 F.A. Khan. op cit. p.27

is perfectly legible. It belongs to the last Abbasid caliph - Abu Abdullah al Mutassim Billah (1242-1258 A.D.). These two coins must have travelled to this south-eastern part of Bengal by way of trade and commerce. They are thus perhaps the first numismatic evidence of Arab trade with medieval Bengal.

But, as in earlier periods, cowries remained the lowest unit in the currency system of the Pāla period. For the Rāmacarita mentions the fact that the army of Madanapāla was maintained by cowries.[1] Moreover, in the ruins of Pāhārpur was found a closed jar containing about $3\frac{1}{2}$ seers of cowries.[2] This indicates that these cowrie-shells were the common currency in the daily economic transactions of the people. Hence the monks residing at the Pāhārpur monastery had provided themselves amply with this humble currency.

No coins of the Senas have been discovered as yet, although some of their copper plates mention drammas.[3] Most of the inscriptions refer to two currency terms - purāṇa[4] and kapardaka purāṇa[5]. They are usually mentioned

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1 R.C. Ch. 4, verse 36, p.143.
2 M.A.S.I., 1955, p.33.
3 I.B., p.118; I.H.Q.II, p.77.
4 The Sunderban C.P. of Lakṣmanasena, Ibid. p.171, Mādhāinagar C.P. of Laksmanasena, Ibid., p.96.
5 Ibid, pp. 74, 102, 112.

in connection with the income derived from particular plots of land donated by the kings. The village Vallahiṭṭa granted by the Naihāṭi plate of Ballālasena had an annual income (utpatti) of 500 kapardaka purāṇas. Similarly the Tarpandighi copper plate of Lakṣmanasena refer to a piece of land which yielded an annual income of 150.kapardaka purāṇas. But it is very doubtful whether these two terms - purāṇa and kapardaka - found in the same inscription, denoted two different coin denominations in our period, for some grants do not mention the name of the coin at all,[1] but only give the figures. If there were two coins circulating side by side, it is certain that one or the other should have been mentioned in connection with these figures. Secondly, it is well known that the purāṇa denoted a silver coin weighing 32 rattis or 58 grains. Had the Sena kings minted silver coins of this or any other weight, it is very likely that at least a "few specimens would have been discovered. Curiously enough, not a single coin which may be attributed to the Sena kings has yet been discovered".

It is thus more likely that purāṇa and kapardaka purāṇa

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1 Calcutta Sāhitya Parisad C.P. of Viśvarūpa Sena, I.B., pp. 143 ff.

were "interchangeable terms" and not, as is usually supposed, the denomination of two different coins.[1] It seems to be more probable that the term kapardaka was prefixed to purāṇa , so as to leave no room for doubt as to the identity of the coin specified, more or less in the same way as bhū was sometimes prefixed to pāṭaka and drona in order to make it clear that they were measures of area and not of weight.[2] But there is still a great deal of controversy among different scholars as to the actual meaning of this term, so often mentioned in the Sena land grants. Surely, it cannot denote a purāṇa which is equal to one kapardaka or cowrie in value. Bhandarkar has suggested that it is a coin, "a purana which is shaped like a kapardaka or cowrie".[3] In support of his hypothesis he refers to the Egyptian and Chinese metallic representation of cowries and the coins of Olbia (on the Aegean Coast) which were shaped like fish.

But this analogy is definitely not a full explanation of kapardaka-purāṇa for the metal representations of cowries and fish belong to a period which was in fact a trans-

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1 H.B., p.668.
2 cf. H. B., p.668.
3 Bhandarkar, Lectures on ancient Indian Numismatics, pp. 139, 176.

itional phase from barter to metallic currency. As has been pointed out earlier in this chapter[1] the system of fashioning a coin after an article which served as a medium of exchange is surely anterior to the origin of coinage in the correct sense of the term. Consequently, what is true of the transition period prior to the advent of coins cannot be true of Bengal under the Senas in the twelfth century A.D., hundreds of years after coinage had been evolved in the country. We know definitely of the existence of a number of gold, silver and copper coins belonging to different dynasties and different times, in pre-Sena Bengal. There is thus no valid reason to suppose that while coins were in circulation before the Senas and after them, these kings particularly went out of their way to have their coins shaped after a kapardaka or cowrie. Such a coin besides the difficulties of fabrication, would mark a definite retrogression in the evolution of coinage in the country. But the strongest argument against Bhandarkar's suggestion, however, is that not a single coin of this type has yet been found from any part either of Bengal or the rest of India.

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1 Supra, p. 303

More plausible is the hypothesis set forth by S. K. Chakravarthy[1] that the kapardaka purāṇa was not an actual coin, but a mere abstract unit of account, issued to denote the corresponding number of cowrie-shells equivalent in value to the amount mentioned in terms of a purāṇa. For we know from many earlier sources that the use of cowries for purposes of exchange was a long standing one in India, particularly in Bengal. For example, Sulaiman, the Arab geographer, who visited India in or about 851 A.D. mentions cowries as the current money in the country.[2] In the Sena period the valuable testimony of Minhaj indicates that when the Muslims first invaded Bengal they noticed no silver currency, but found the people using cowrie-shells in their economic transactinns. He further states that a king who in those days wished to make a monetary gift had to give at least a lakh of cowries.[3] In later times we have reference to cowries in the Caryāpadas of the late medieval period.[4] Even as late as 1750 A.D. duties were collected at Calcutta in cowries,[5] and many other small-

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1 I.H.Q., VIII, p.599.
2 Ferrand, I p.38.
3 Tabaqat-i-Nasiri tr. Raverty, p.556.
4 cf. H.B. p.669, fn 1.
5 Ibid.

scale economic transactions were carried through their medium. Though at present a cowrie has ceased to have any monetary value in the country, it has still retained its old position, theoretically at least, in the Bengali mathematical works known as dhārāpāt. There one will find a table styled as karākiya, the unit of its calculation being the Karā or Kari - which are really the Bengali versions of the term cowrie.[1]

Thus it follows that cowrie shells, which had occupied an important position in the currency system of the country for a long time, became by the time of the Senas the principal, if not the only medium of exchange and the silver coin known as the purāṇa or dramma was reduced to a mere theoretical standard of value. Payments within the country were generally made in cowries and non-minted precious metals and ornaments for larger transactions. "A certain number of these cowries came to be equated to the silver coin purāṇa, thus linking up all exchange transactions ultimately to silver, just as at present the silver coin is linked up to gold at a certain ratio."[2] In other

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1 J.N.S.I., VII, p.82. The karākiya table is as follows:

4	karas	= 1	gaṇḍa					
20	"	= 5	"	s	= 1	buri		
80	"	=20	"		= 4	"	s	= 1 paṇ
1280	"	=320	"		= 62	=		= 1 kāhan (Skt. kārṣāpaṇa)

2 J.I.H.Q., VIII, p.599.

words the kapardaka purāṇa was an abstract unit of account or a token currency linked with the silver purāṇa, much in the same way as in more recent times paper currency was based upon a gold standard.

Besides the purāṇa and kapardaka purāṇa two of the Sena inscriptions mention drammas. This suggests that though for all practical purposes cowries served as the medium of exchange, the tradition of silver coins was not perhaps wholly forgotten. A few of them issued earlier were still in circulation, though not on a wider scale. Perhaps they were used only for inter-state trade. The general paucity of silver coins during this period may be connected with the decrease in the amount of silver which India received from abroad. In these times, before the discovery of America, the chief source of silver was central Asia. The rise of the Arab power under the vigorous impact of Islam and the consequent political disturbances in the area must have affected the trade relations between India and these parts and must have curtailed, if not completely cut off, all supplies of silver from abroad.[1]

The above survey of the coinage system in ancient Bengal has made it clear that there was paucity and debasement of coins in general, after the fall of the Guptas. The trend which was begun during the later part of the reign of Skandagupta

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could not be checked by his successors. The debasement of coins went on unabated during the following years and this is evident from the few stray pieces issued now and then after 450 A.D. Then came the Gupta imitation coins, which are really copper or silver pieces coated with gold. But from the eighth century onwards even these seem to disappear totally from the economic field. It is strange that even the Pālas with their extensive power and the tradition of Gupta gold coinage behind them did not try to revive them. This seems all the more strange in view of the fact that in the same period the neighbouring provinces of Kāmarūpa and Orissa are known to have possessed a regular gold currency. As we have pointed out earlier, this may have been due to the general cheapness of commodities, the feudal conditions of society and polity, and the large quantity of Gupta coins already in circulation. Till recently the view was held that, like gold, silver coins also disappeared almost totally from Bengal after the sixth and seventh centuries. The few Pāla coins were the only specimens of this type and even their ascription was not absolutely certain. But the recent discovery of eight Candra coins from Sylhet[1] and two hoards consisting of 224 coins from Mainamati[2] have disproved this contention. They definitely

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1 Numismatic chronicle and the journal of the Royal Numismatic Society, London, XX, 1960, pp. 229-233.
2 F. A. Khan, Mainamati, p. 25.

prove that silver coins were used as currency in the period, at least in the eastern part of Bengal. They were in all probability minted locally and issued in three different denominations. Again, though no silver coins belonging to the Senas have been traced so far, it is clear from the references to purāṇas and drammas in their inscriptions, that silver was still looked on as the standard to which other units like cowries were related. The debasement in the metal content as well as in eight of the coins after the fall of the Guptas may be connected with a general paucity of gold and silver in the period. Sometimes these features are traced to the overall decline in the volume of Bengal's trade and commerce in the post-Gupta period.[1] Much of the gold that flowed into India in the third and fourth centuries A.D. came no doubt as a result of the prosperous trade relations with the west, especially with the Roman Empire. Bengal under the Guptas must have also shared in this general prosperity, and derived considerable profits in gold and silver by exporting muslins, spices etc. We know from various sources that the ports of Tāmralipta and Gange were kept busy with trading vessels from different parts of the world. But with the rise of the Arab power,

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1 Cf. B.I., p.197.

most of this profitable trade between the east and the west was captured by the Arab merchants. Moreover, owing to the change in the course of the river Sarasvati, the ancient port of Tāmralipta also gradually lost its importance. Consequently, the amount of foreign exchange in the shape of gold and silver which Bengal earned from her exports declined. This could have affected her coinage system. But this is just one of the possible causes for the scarcity of coins, because it does not fully explain why even the powerful Pālas, who had connections with Ceylon, and South East Asia, did not attempt to introduce a complete currency. We are also not sure that this decline of trade and commerce in any way affected the general economic prosperity of the country, for the picture we usually get from epigraphic and literary sources of the time is one of plenty and prosperity. Moreover, as has been pointed out by A. K. Majumdar,[1] it is highly debatable if the economic forces, such as balance of trade, which operate in the modern world, had any influence in those days when the mode of trading was entirely different.

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1 A. K. Majumdar, Chālukyas of Gujrat, p.270.

In conclusion, we would suggest that the issuing of coins was not necessarily connected with the functions of the state or the king in ancient India. To quote K.V.R. Aiyangar, "Coinage though undertaken by the state and considered to be one of the insignias of royalty, appears neither to have been regarded, as it is nowadays, as a sign of political independence nor as an exclusive prerogative of the king".[1] The state issued coins apparently as a matter of convenience only. If a sufficient number of coins were already in circulation, or if the economic needs of the kingdom did not require fresh coins, kings usually refrained from issuing them. We may therefore suggest that as the gold coins of Kuṣāṇas and Guptas particularly continued to be in circulation in most of the area, the Pālas, Senas and their contemporary rulers did not take the trouble of issuing many new ones. Their attempt to introduce silver currency was also a half-hearted one and was soon abandond.

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1 K.V.R. Aiyangar, Aspects of Ancient Economic Thought, p.96.

CONCLUSION

The above study provides a general survey of the economic condition in Bengal during the period under review. The well-developed state of agriculture, industry and trade in this period is borne out, as shown above, by the joint evidence of literature, historical records and foreign writings. We have seen from the mention of Nagaraśreṣṭhin etc. in pre-Pāla records that traders and artisans held important positions in the state and society. This implies that trade and industry were of great importance in this period. But from the eighth century onwards we have evidence to show that although some amount of trade and industry were still carried on, the economy of Bengal came to be based even more strongly on agriculture, as it is also today. The growing demand for land during this period can be indirectly proved by a number of copper-plate inscriptions dating from the fifth century onwards. This is also manifested in the minuteness with which boundaries were specified in inscriptions of the later period and the ever-increasing fractions in the units of land measurement. The comparative scarcity of gold and silver coins in the Pāla and the Sena periods tends to emphasise that the economy that prevailed during this period was self-sufficient rather than prosperous. Cowries and coins of smaller denominations were perhaps sufficient for the agricultural economy

of Bengal in this period. Gold and silver coins of the Gupta and Kuṣāna kings were still in circulation and these in all probability served the needs of large-scale transactions with other parts of the Indian sub-continent and foreign countries.

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PLATE I

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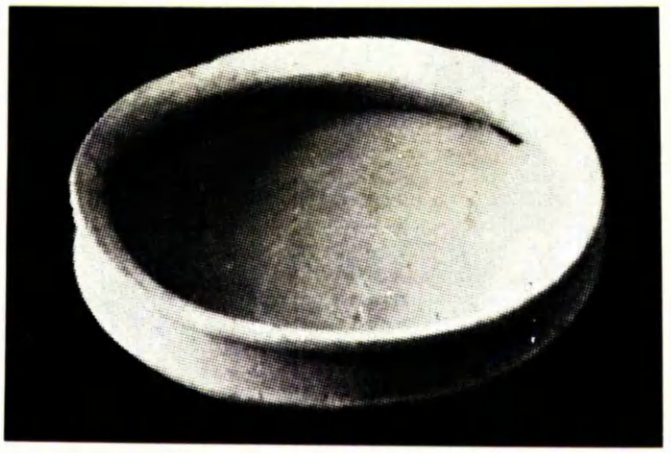

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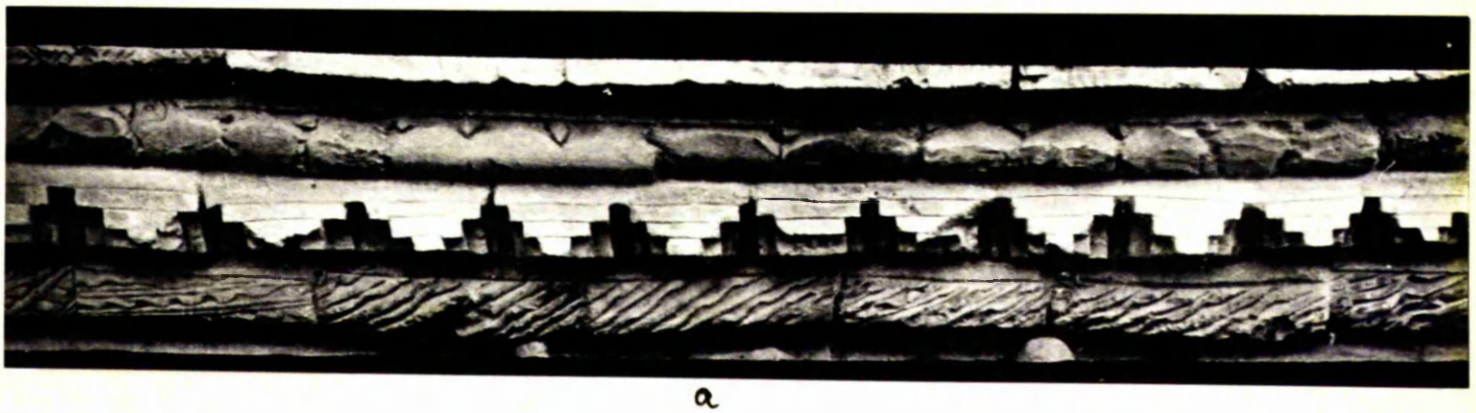
PLATE III.



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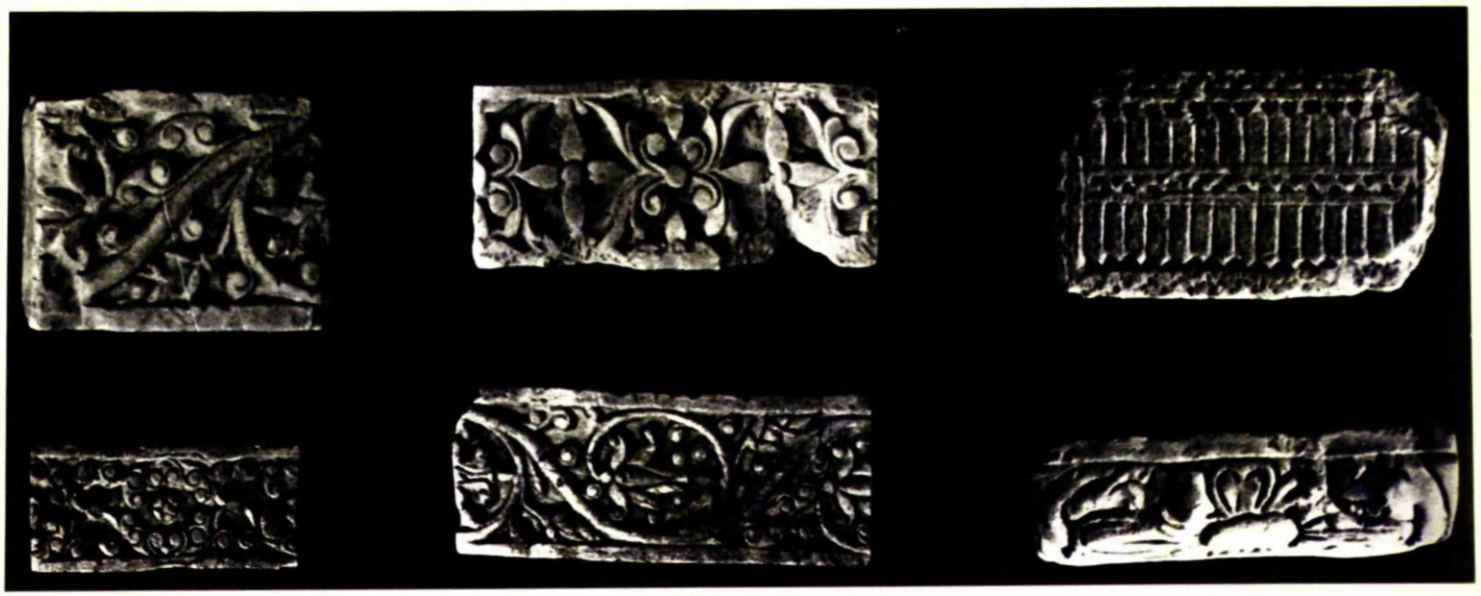

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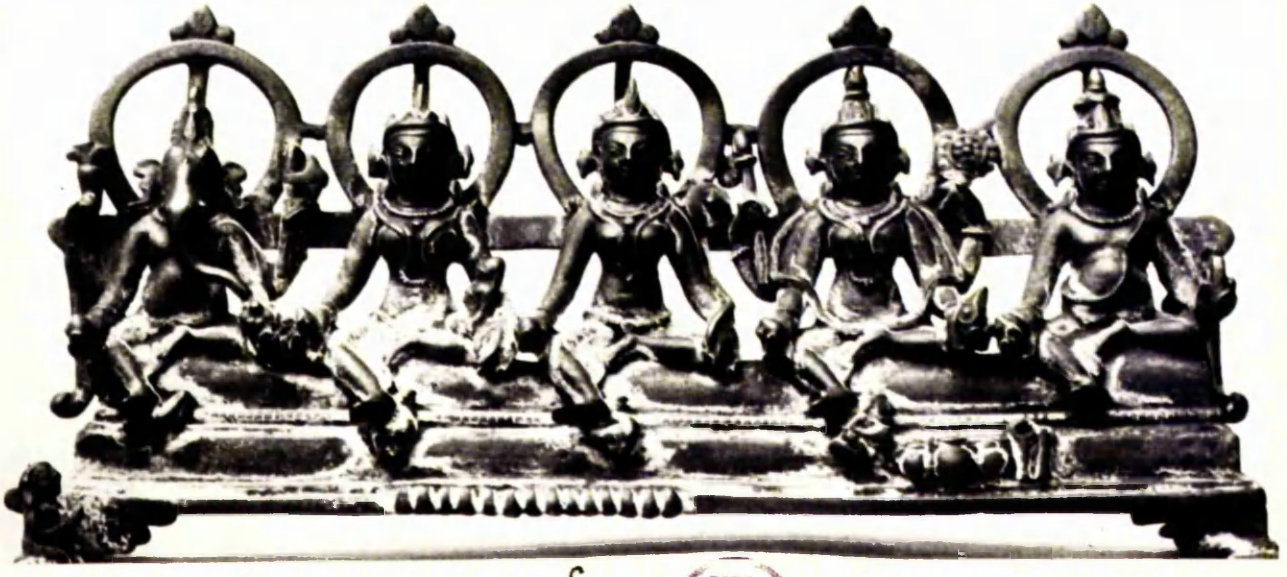

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PLATE VI